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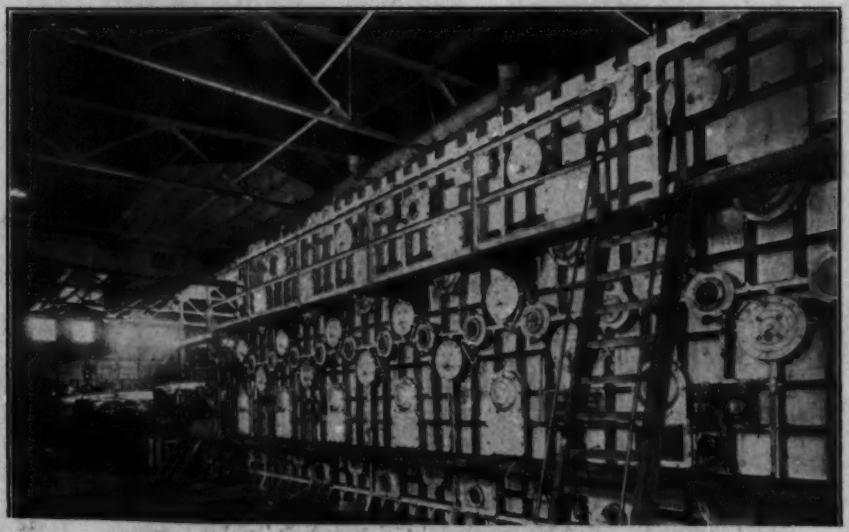
THE MINTON VACUUM DRYER

MARKS AN ADVANCE IN THE PAPER MAKING INDUSTRY SECOND ONLY TO THE ADVENT OF THE FOURDRINIER PAPER MACHINE



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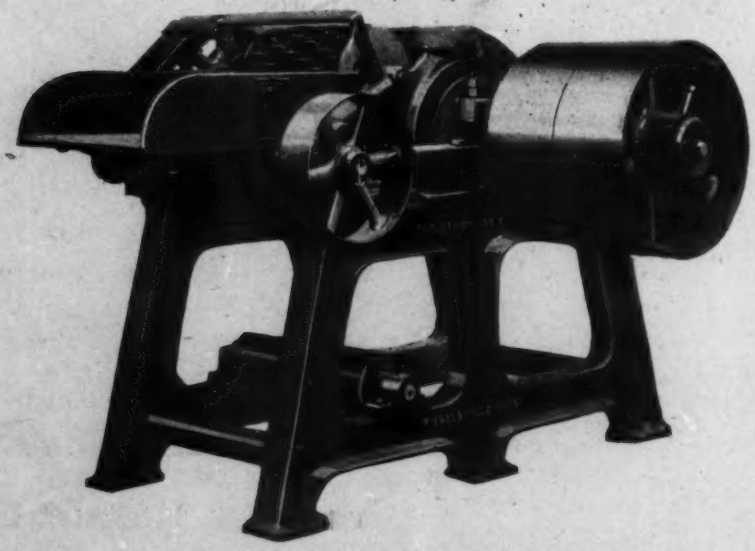

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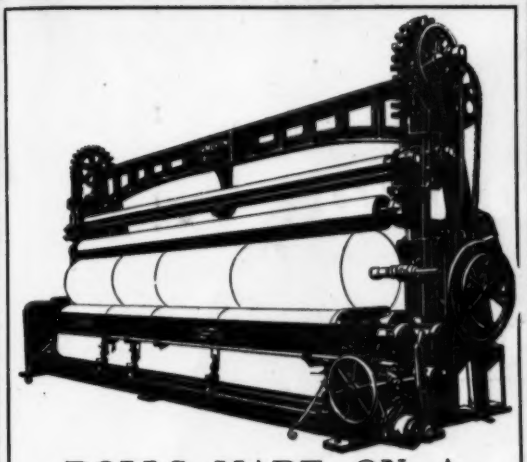

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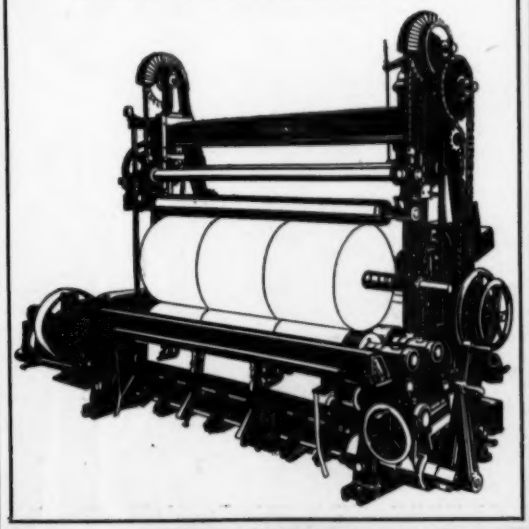

PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-SEVENTH YEAR

Published Every Thursday by the
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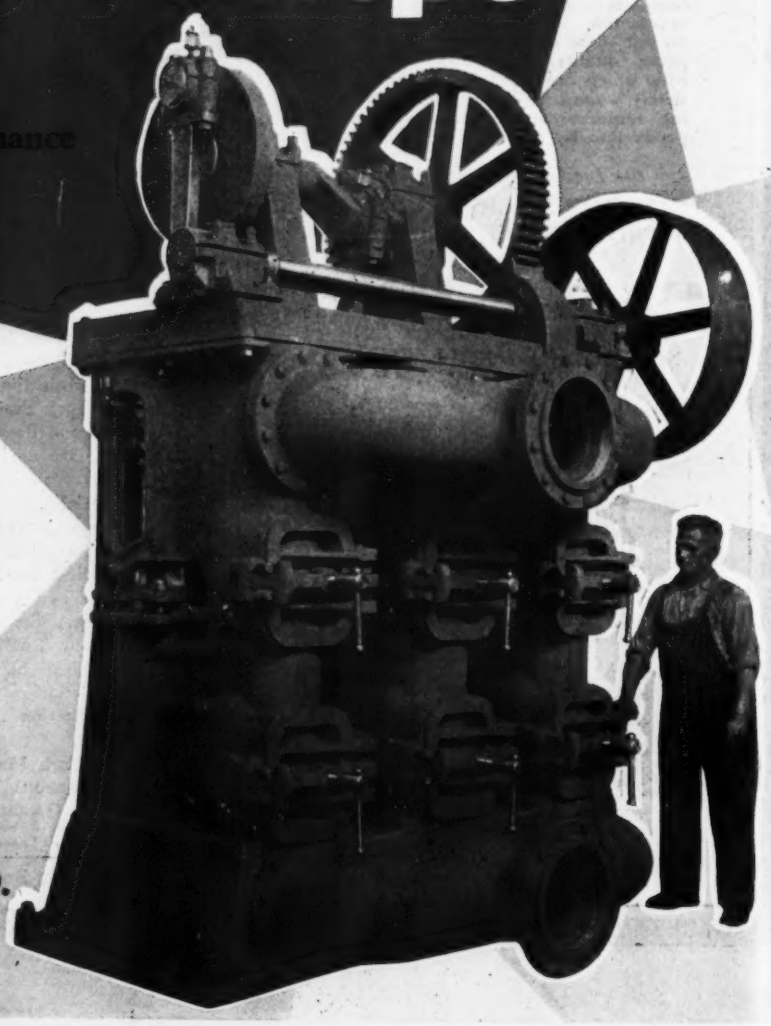

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PAPER TRADE JOURNAL

With Which Is Combined

PAPER

Vol. LXXVIII, No. 26 — Thursday, June 27, 1929

Canadian Technicians Hold Summer Meeting

Paper Mill Engineers and Chemists From All Over Canada Attend Convention of Technical Section of Canadian Pulp and Paper Association—Visit Mills of the Anglo-Canadian Pulp and Paper Mills Ltd. and the St. Anne Paper Co.—R. A. McInnis Presides at Sessions—Various Reports and Discussions

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, QUE., June 24, 1929—Members of the Technical Section of the Canadian Pulp and Paper Association gathered in Montreal last Tuesday for their annual summer meeting. Informal visits were paid to the Pulp and Paper Research Institute here, which is the headquarters of the association, the visitors including paper mill chemists and engineers from all over Canada.

Special cars on the Canadian Pacific Railroad conveyed the party to Three Rivers, where a visit was paid to the Quebec Government School of Paper Making and to the mills of the Canadian International Paper Company, the Wayagamack Pulp and Paper Company, the St. Lawrence Paper Company, and the Canada Power and Paper Company, all of which are located in or near Three Rivers. The visitors were entertained at luncheon at the Chateau du Blois, the guests including civic authorities, government representatives and company executives. George Carruthers, president of the Interlake Tissue Mills Company, Ltd., Merritton, Ont., a past chairman of the section, presided at this function.

Wednesday evening the party proceeded on special cars to Quebec. Thursday was taken up with business proceedings, during which papers were presented by Professor Harold Hibbert, of the Department of Industrial and Cellulose Chemistry of McGill University, Dr. John S. Bates, research manager in charge of Price Bros. & Co's. scientific organization, and E. P. Cameron, director of the Division of Pulp and Paper, Forest Products Laboratories, of Canada. Various committees reported upon their work and discussions ensued. In the evening a banquet was tendered the visitors, at which the Hon. L. A. Taschereau and others prominent in public life of the province made addresses.

Make Visit to Mills

Friday was devoted to visits to the mills of the Anglo-Canadian Pulp and Paper Mills, Ltd., and the Ste. Anne Paper Company, both of which, being of recent construction and modern design, afforded points of special interest to the visitors. The Ste. Anne Paper Company were hosts at Friday's luncheon.

R. A. McInnis, general manager of the Anglo-Canadian Pulp and Paper Mills, Ltd., Quebec, is this year's chairman of the section and presided at all the meetings as well as at Thursday night's banquet. The executive council consists of H. J. Buncke, Abitibi Power and Paper Company, Ltd., Iroquois Falls, Ont.; John Stadler, Lake St. John Power and Paper Company, Montreal, Que.; G. H. Tomlinson, Howard Smith Paper Mills, Ltd., Cornwall, Ont.; D. L. McLeod, Price Bros., and Co., Ltd., Kenogami, Que.; J. O. Mason, Canada Power and Paper Corporation, Grand Mere, Que.; C. B. Thorne, Canadian International Paper Company, Hawkesbury, Ont. Edward Beck is the section's secretary. A. E. Cadman, of the association's staff, was in general charge of the arrangements.

Delivery to the Canadian Government of the first tri-motored Ford air transport equipped with pontoons has brought to light another interesting use for the airplane, in which the dusting of cotton from the air was forerunner.

The plane will be employed by the Canadian Government for the eradication of the spruce bud worm from the spruce forests of Central Western Canada. The regular Ford landing gear was replaced with pontoons prior to delivery because the wide expanse of territory over which the plane will be operated had no improved airports, but possesses thousands of small lakes which may be made safe harbors for the large ship.

Arrangements were made in the cabin of the plane for the carrying of 1,600 pounds of powder with which the forests are dusted. Experience has shown that in this type of preservation work, which the Canadian Government regards as necessary to save the northern spruce, the airplane must be flown close to the tree tops. This permits both an even and general distribution of the powder over the tree.

Decision was made by Canadian officials to adopt the tri-motored plane for this work because of the added safety factor it possesses in low flying, plus the additional load it can carry.

Except for the pontoons, the plane is one of the standard type all-metal transports of the Ford Motor Company. It is powered by three J-6 Wright Whirlwind motors generating a total of 900 horsepower, and giving a high speed of 127 miles per hour.

The airplane was first used for dusting cotton as a protection against the boll weevil in 1922, when experiments disclosed that a plane could do the work as effectively as 100 ground-operated dusting machines.

Fire Loss in Canada

Official figures relating to forest fires in Canada for the calendar year 1928 have now been issued. These show that 4,259 fires were reported. The area burned over was 1,347,170 acres, and the loss was $1,328,950, which compares with a five-year average of $4,463,581.

Increase on News Print Suspended

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 26, 1929.—The Interstate Commerce Commission has suspended until January 21, 1930, the operation of certain railroad schedules which propose to increase rates on newsprint paper and other paper articles, in carloads, from points in Canada to numerous destinations in the United States.

Pennsylvania Paper Manufacturers Fairly Busy

Mill Representatives Report Lively Contract Demand For Next Quarter's Requirements and Some Advance Purchasing For Autumn—Summer Specialties and Various Box Making Materials in Exceptionally Strong Request—Cheaper Grades Are Less Active

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, PA., June 24, 1929—As the Philadelphia paper trade completes the inventory of the first six months of the current year, there is disclosed a brighter side than anticipated, with a few of the paper houses showing slightly higher averages over last year. Though the paper industry was subjected to many factors that deterred its progress in the first six months, it forged ahead in the matter of stabilization of prices and the broader distribution of standardized products.

Some of the larger paper mills are fairly well occupied with orders for immediate needs. Mill representatives report livelier demand for contracts to cover next quarter and some advance buying for autumn. Mill buying, except where book papers are concerned, is confined to hot weather commodities and certain products that will be needed for early autumn or for holiday requirements in the converting industry. These products are mostly in box making specialties, such as paper boards, bristols and card boards, fancy box papers, greeting card stocks and social announcements. Cheaper grades of papers are not active and the market is flooded with offers from the mills at this time in order to maintain summertime operations.

Demand for paper stock is draggy. There has been a slackened interest in mill buying as manufacturers prepare for overhauling their plants in the early summer weeks. While demand is quieter, wholesalers are able to dispose of all stock that can be had, as accumulations are scarce. Rags likewise move slowly, except in a few grades that are used for the manufacture of roofings and felts.

General Electric Paper Mill Conference

National representation of the paper mill electrical equipment divisions of the General Electric Company brought together the various managers of the branch offices of that company in annual conference at the Schenectady headquarters last week for the purpose of discussing the new types of electric devices that have been perfected for the paper industry, in recent times. The three day conferences were held at the plant of the General Electric Company, when the paper mill specialists were shown the new devices and were given working demonstration of the equipment in a practical educational way in the laboratories and factory of the company. Many new and interesting devices and appliances for the paper industry were exhibited and the displays supplemented by informative and technical talks by experts of the General Electric staff for the benefit of the mill experts in the field. The Philadelphia headquarters, one of the largest branches and plants of the General Electric Company, was represented by Frank E. Winslow, who covers the local trade and the southern section of the country as manager of the paper mill division of the Quaker City offices. Others among the thirty representatives who attended the conferences were J. M. Wade and W. L. Hilfrank, Boston; R. T. Scully, New York; P. Y. Toomey, Grand Rapids, Mich.; J. J. Wall, Milwaukee; A. F. Smith, Cincinnati; R. W. Leeper, and George Wilson, Toronto, Can., and W. W. Cronkhite, Schenectady.

Scott Paper Co. Completes Paper Machine

The erection of the new Moore & White paper making machine in the plant of the Scott Paper Company, of Chester, Pa. has been completed and will shortly be placed in operation. The new equipment will provide for the manufacture of specialties for the Scott company. It is 92 inches wide, and has been designed to attain a new speed record of 1,400 feet of paper per minute. The new machine supplements the former paper making units installed by the Moore & White Company of Philadelphia, which were until the present installation the speediest machines in the world, with a record of 900 feet per minute. The previous installations were 175 inches, but, while the new machine is smaller in width it tops all previous production by 500 feet of paper per minute. Since the new machine has been completed the temporary use of Collins & Dill Flat Rock mill has been discontinued. The Scott company has been using the Flat Rock Mill for the past two months while the new machine was being installed by the Moore & White Company.

Phil-Fibre Box Board Mills Improvement

As the new paper stock storage building of the Phil-Fibre Box Board Mills Inc., is completed and the firm increases its production there is planned other improvements in the way of modernizing the power equipment. The Phil-Fibre mills have recently been subjected to many innovations that have been brought about in the buildings within recent years and the additional units added to the paper making machines which have advanced production to a considerable increase over previous capacity. There will shortly be installed motors to drive the power units and new beaters for the increase of pulp production for its line of paper boards used by the folding box industry and the set box trades and other converters. The mills are equipped with a particularly clean water supply which comes from a spring well in the plant. This well is noted for its clarity and special adaption for the production of clean boards that are used for the better grades of folding boxes and similar purposes. Trade congratulations are being extended to Louis Soladar and Mrs. Soladar on the arrival of a newcomer to the family, Sheldon Soladar, joined the family circle last week. Mrs. Esther Solodar, is the former secretary of the company and previous to her marriage a few years ago was actively engaged in the duties now assigned to her husband in the secretarial management. She is a sister of President David Newman.

Standard Paper Co. Installs New Machine

Equipped with General Electric drives and individual motors made by the General Electric Company, the new paper making machine now in process of installation in the plant of the Standard Paper Company will enable the paper manufacturers in Richmond, Va., to greatly extend production and speed up operations in its No. 3 Mill. The new paper making machine is being installed by Rite, Barton & Fales, of Worcester, Mass. and is of the Fourdrinier type and will turn out a sheet 126 inches in width. It will be given over to the production of book papers. The motors are being supplied through the Philadelphia branch of the General Electric Company and will be of the latest type for driving paper making equipment. It is expected that the new machine will shortly be in operation and the extension of the book paper division under way before mid July. With the new paper making unit the Standard Paper Company will materially extend its book paper services to the trade. The other power units in the three mills comprising the plant in the Southern City have all been motorized and the entire mechanical units brought up-to-date so that orders may be handled with dispatch.

Japan Paper Co. Importations

While new imported papers are now being purchased abroad by Ludwig Rohm, purchasing agent for the Japan Paper Company,

the Philadelphia offices in the Witherspoon Building under Manager Warwick C. Miller are now showing a fine line of French stationery just arrived from the other side of the Atlantic. The new French papers are boxed and contain a great variety of colors and designs adapted for high grade gift stationery and for imprint and engraved personal requirements. Other new lines of papers will be bought by Mr. Rohm who sailed for Europe last week and who will cover the paper making centers in England, France, Italy and Austria before making his homeward voyage. He will spend six weeks in touring the European paper mills seeking new imported papers for the Japan company. The imported grades will include stationery, printing, engraving and announcement stocks and a line of fancy wrapping for holiday and gift purposes.

C. M. Levis Returns From European Tour

President Charles Megarge Levis, head of the paper manufacturing concern of Curtis & Bros., Newark, Del., with executive headquarters in the Public Ledger Building, returned last week from a six weeks tour of Europe accompanied by Mrs. Levis. They visited Italy, France and Switzerland, making the homeward voyage on the *Olympic* from Naples.

Curtis & Bros. at Capacity

Since the electrification of the fine paper mills of Curtis & Bros., at Newark, Del., has been completed, the plant has been run to capacity with a gratifying early summer business that will keep the machines at this rate of production for several weeks to come. The Curtis & Bros. mills are modernized, all the units being equipped with individual motors of the General Electric type. There has been a wide scattered buying of the various lines made at the mills, including book papers, cover grades, writings and offset stocks, since the firm has opened new distributive outlets in various parts of the nation and extended its business from Coast to Coast, as the production of its lines of papers have been perfected and increased. The Philadelphia distributor, A. Hartung, Inc., 506 Race street, has been rapidly increasing its stocks of these papers. The mills have been shipping considerable volume of the various makes of papers to the Quaker City dealers in recent weeks. A. Hartung, Inc., took over the distribution of the lines in the early weeks of the current year when the mills retired from the local distributive trade.

Westvaco Improves Tyrone Mills

Extensive improvements now are under way in the West Virginia Pulp and Paper Company mills Tyrone, Pa., which will give additional production facilities and modernize the units as well as permit of the operation of the plant by electricity. The improvements are being particularly applied to the boiler room and plant and to the power house, where General Electric Motors will be installed for the operation of the machines and the power plant.

Louis Barker Passes

The trade was informed during the week of the passing of the Philadelphia territory representative of the Downingtown Manufacturing Company of Dowingtown, Pa., manufacturers of paper making equipment and converting machines, Louis Barker, whose death came suddenly from a heart attack. Mr. Barker was found dead in his bed, having passed away in his sleep at his home in Downingtown last Monday. He covered Philadelphia and adjacent territory in New Jersey for the machine company.

T. M. Royal & Co. Feature Cellophane Bags

As the newer types of high grade cellophane bags are produced by Thomas M. Royal & Co., the plant has been kept at top notch production meeting the growing needs for these newest style of bags with combination cellophane faces and various kinds of paper backings. Additional equipment has been added to the plant to meet the growing orders now being placed for the cellophane faced bags in all sizes. It is expected that further expansion in the sizes and grades of larger bags in the cellophane combination type will be made later in the year. These bags are exclusively made by the firm under its own development for a serviceable container which will give visibility and durability in bags for grocers, confectioners, coffee manufacturers, food manufacturers, bakers, and for mercantile purposes. Vice-president Gordon H. Friend, of the firm, and its general manager, attended the Potomac State Bakers Convention held at the Cavalier Hotel, Virginia Beach, during June 17 to 19 and supervised the display of these newest products during the annual gathering.

Mills Handicapped by Loss of Railroad Service

[FROM OUR REGULAR CORRESPONDENT]

BALLSTON, SPA., N. Y., June 24, 1929.—Paper manufacturing establishments in this section are considerably affected by the suspension of service on the Kaydeross Railroad under an order of the Public Service Commission. The company has served mills between this city and Middle Grove for the past forty years. The commission ordered repairs to tracks and bridges which the company declared it was unable to make through lack of funds and the suspension order consequently followed. The late Joseph Leggett, of Troy, owned several mills in this section which were served by the road in its early days. When the several cars of the company were placed in the barns in this city and the doors locked the mills and residents in the valley were left without any public transportation service.

The Cottrell Paper Mill, of Rock City Falls, will continue operations using auto trucks for transportation of materials and finished goods. The Kaydeross Paper Mill closed its mill Saturday because of the cessation of railroad service and the Empire Mill of the same company will shut down within ten days or more, according to announcement. Vice-president D. V. Lowe stated that his company is making a study of the possibility of operating the Pioneer and Empire Mills if bus service is supplied. He declared that the greatest difficulty will be in the handling of freight. The firm now pays $25,000 annually for the hauling of freight between the mills and Ballston.

The paper company has asked the Public Service Commission for the establishment of through freight rates to and from West Milton and Rock City Falls and outside territory to place the valley on a par with similar industrial communities. At present coal costs $1.32 more per gross ton at Rock City Falls than at Corinth, several miles from the mills. The company feels that the railroad might cooperate in an attempt to establish these joint through rates and obtain sufficient revenue to pay them to continue. Such rates, however, cannot be obtained without the existence of a through freight service, apart from motor trucks.

Paper Supply Co. Opens at Kansas City

On June 15, 1929, the Paper Supply Company, a corporation chartered under the laws of the State of Kansas, opened a wholesale paper house in Kansas City, Kan., with office and warehouse at 1711 Minnesota avenue.

The officers of the company are Selden M. Jones, president; Ralph H. Metcalf, vice-president and treasurer, and Gilbert E. Gangwer, secretary. Mr. Jones is an alumnus of the University of Kansas and has for the past seven years been connected with the Kansas City Paper House of Kansas City, Mo., being a son of Ellis R. Jones who is vice-president and secretary of that company. Mr. Metcalf is a graduate of the University of Kansas and until recently has been assistant secretary and treasurer of the United Iron Works, Inc., formerly of Kansas City, Mo. Mr. Gangwer has had twelve years' experience in the paper business and for the past five years has been sales representative for the Geo. H. Morrill Company.

In addition to the officers of the company, Tom Holder, Harold Durrell and James J. Richmond, all experienced in the paper business, will represent the company to the trade.

A complete line of toilet papers, paper towels, bags, wrappings and specialties will be carried. At an early date fine papers will be stocked and a small roll converting plant operated in connection therewith.

The company is capitalized at $25,000.

Encouraging Outlook For Dryden Paper Co.

Earnings Reported to be Considerably Ahead of Last Year's Record — Major Share Derived From Sale of Kraft Paper and Sulphite Pulp—Large Percentage Contracted For By Bates Valve Co.—New Outlets Developed For Production Within Last Year

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, ONT., June 24, 1929.—Although official information is lacking, it is understood that earnings of the Dryden Paper Company, of Dryden, Ont., are running at a rate substantially ahead of those of last year. Furthermore, providing there is no set-back during the balance of the fiscal year, which ends September 30 next, it is likely that the company will show net earnings of around $400,000 as available on 150,000 shares of no par value common stock outstanding. Operations of the company are understood to be on a satisfactory basis. The major share of the company's earnings is derived from its sale of kraft paper and sulphite pulp, a large percentage of which is contracted for under a five year agreement by the Bates Valve Bag Company. This contract, which was entered into a short time ago, has enabled the company to maintain operations at a very high level. The balance of the output, approximately one-third of the total, or 5,000 tons of kraft paper, is distributed throughout the west, a market for which the company is eminently suited to serve.

Within the last year the company has developed several new outlets for its production over and above the Bates Valve contract with important customers, as the T. Eaton Company, Hudson Bay Company and the Barrett Company. Some progress has also been made by the company in inducing the milling companies throughout Western Canada to adopt kraft paper containers for their flour products. Furthermore Dryden is said to be in a position that it does not have to worry about competition from other producers. Its plant is located in the heart of extensive timber limits, which enables them to get their wood supplies at low cost. The company also has its own power plant at Dryden, which two factors combine for low cost production.

Another favorable development in connection with the earnings power of Dryden was the increase in kraft prices announced by the International Paper Company some weeks ago, which has had a strengthening influence on the kraft paper market. For its physical year ended September 30., 1928, the company reported earnings available for bond interest and depreciation of $324,-169. This compares with $274,497 in the preceding year.

Abitibi Power & Paper Co. Busy

A substantial step-up in the rate of operations at the various plants of the Abitibi Power and Paper Company has taken place recently. During the progress of negotiations regarding the price of news print, several of the company's mills were shut down. with a consequent lowering in the ratio of production capacity. As a result for a time the company as a whole was operating at less than 75 per cent. With the re-opening of the Fort William Paper Company a couple of months ago and the placing in operation of all four machines at the Sault Ste. Marie plant, however, a marked increase in output has been obtained. It is now stated officially that production has reached a rate of 90 per cent. of capacity. On account of the larger demand from the United States that has developed in the past few months, it is anticipated that this rate is likely to be maintained or even bettered during the months of July and August.

News Print Stocks are Improving

Brokers who have been watching the news print stocks for a year or longer are almost unanimous in the belief that the issues are now at, or near, bottom prices, unless the stock market in general takes a pronounced turn for the worse during the next few months. Recent statistics indicate that the industry has turned the corner and that there will be a growing activity in the existing plants, while it is unlikely that the productive capacity of the industry will be materially increased soon. It would be virtually impossible successfully to finance a new news print company under present conditions. Yet while the expert observers are inclined to think that bottom prices have been reached for the stocks, there are few with the temerity to suggest that any or all of the shares will advance materially or rapidly in market value. It is suggested in more than one quarter that there may be a period of some duration when the shares will fluctuate little in the market and that the time is yet to come when a general advance will be recorded. "It may be time to begin buying news print shares," said one Toronto broker, "but I would not advise heavy purchases lest the market experience a further slump for reasons which cannot be foreseen, or because the credit situation may retard the advance of the market as a whole."

Paper Products Exhibit by Stationers

Many delegates from all over Canada and the United States attended the fourteenth Annual Convention of the Wholesale Stationers' Association of America at the Royal York Hotel June 17, 18 and 19, and the special merchandise exhibit staged by stationery and various other converting firms was visited by many of the Toronto paper trade. Among the exhibitors were: W. J. Gage Company, Toronto, papeteries, etc.; W. V. Dawson, Ltd., Montreal, blank books etc.; Carlton Publishing Company, greeting cards; Luckett Loose Leaf, Ltd., loose leaf systems; Copp Clark Company, Ltd.; Toronto, greeting cards, seals, etc.; Office Specialty Manufacturing Company, folders and guides; Brown Bros., Ltd., super finish process, showing Irving-Pitt lines, blank books, catalogue covers, etc. Problems peculiar to the stationery and general paper converting trades were discussed at the convention which was one of the most successful the organization has yet held.

How Canadian Timber Consumption Grows

Figures compiled by the Forest Service of the Department of the Interior at Ottawa afford a striking evidence of the manner in which Canada's forests have in late years been subjected to a heavily increasing demand for raw materials. The timber consumption in the manufacture of lumber has shown no very pronounced upward trend in the last decade or so, but the advance of the pulpwood industry has been responsible for changing the whole aspect of forest utilization. Twenty years or so ago the yearly pulpwood cut, expressed in terms of standing timber, was equivalent to hardly 20 per cent. of the annual lumber cut. Today the timber consumption for pulpwood has risen to a point where it is equal to about 77 per cent. of that used for lumber and the trend, except for a slight reaction in 1920-21, has been generally upward. It is conceivable that a few more years may see the pulpwood industry outweighing the lumber industry in its yearly tax upon the Dominion's forest supplies. It is pointed out that the main significance in this trend lies in the fact that with these two timber-using industries both developed upon a huge scale, the Dominion has now a vastly increased stake in good forest management. The forest service department says that forest conservation today should have behind it an infinitely stronger commercial incentive and support than ever before.

Talking Movies to Combat Forest Fires

A unique enterprise set forth from Ottawa recently on an itinary of 8,000 miles covering Quebec and New Brunswick. The "Caravan" is one of the fifteen traveling outfits of the Canadian Forestry Association and is equipped with motion picture and

sound producing apparatus so that in hundreds of market places, at factories and tourist camps, schools, etc., popular leaders will address the people on the subject of forest protection. The caravan presents on the screen and by the human voice, Premier Taschereau, the Hon. Honore Mercier, Sir Henry Thornton and E. W. Beatty, president of the C. P. R., and the speeches are illustrated not only by motion pictures of the speaker himself but by graphic portrayals of the causes and effects of forest fires as accompaniments to the address. A trained lecturer, Wilfrid Baril, and an assistant, travel with the caravan giving additional talks many times daily. Broad daylight does not hamper the operation of the caravan as movies are shown equally well in sunshine or darkness. Radio amplifying apparatus carries the human voices with perfect clearness to outdoor audiences of many hundreds. A similar enterprise is employed by the Canadian Forestry Association in Western Canada.

Notes and Jottings of the Trade

Excavating has been started at 84-8 University Avenue, Toronto, prior to the erection of a new head office building for the Abitibi Power and Paper Company, Bank of Hamilton Building, Yonge street, Toronto, by the George A. Fuller Company, of Canada, Ltd., which holds no-bid cost-plus bulk contract. Plans call for reinforced concrete stone-faced building, two storeys and basement, 50x120 feet.

H. Burcham Hart, who will be remembered by many as one of the pioneers of the wax paper industry in Canada, is at present in Toronto on a business visit from London, England. Mr. Hart has for the past ten years been the prime mover in the development of what is now the largest firm manufacturing wax papers in England, and for two years has filled the position of chairman of the Waxed Paper Manufacturers' Association of Great Britain. He reports that while considerable progress has been made in the introduction of waxed paper in its many froms in England, there is still scope for very considerable additional development.

The Ontario Government is calling for tenders for the right to cut pulpwood from a number of lots in the Cochrane district of Northern Ontario. Tenders will be received up to July 12.

A. G. Poundsford, manager of Provincial Paper, Ltd., Port Arthur, Ont., announces that the company will build a two storey concrete office building which will cost $50,000. Excavation for the structure, which will be 44 by 84 feet and two storeys high with basement, has already started. The floors will be used for office purposes and there will be a recreation hall in the basement.

According to information issued by the Canadian Government there is approximately $573,788,000 foreign capital invested in Canadian pulp, paper and lumber industries, of which $450,505,000 is American capital. It is further stated that Canadians own from 55 per cent. to 65 per cent. of the securities of all enterprises located on Canadian soil.

Pulpwood operators have commenced summer activities of cutting and peeling pulpwood in the Thunder Bay District of Ontario. A number of operators located just east and west of Port Arthur were in that city recently looking for help and their demands were met by the Port Arthur branch of the Employment Service of Canada, which placed several men on jobs. The average price paid for pulpwood cutters and peelers is $3.50 per cord.

E. E. Johnston, head of the Pigeon Timber Company, Port Arthur, Ont., recently made arrangements to drive 35,000 cords of pulpwood over the Kekabeka Falls. The wood, which had been purchased from the settlers along the head waters of the Kaministiquia River, is for the mill of the Great Lakes Paper Company at Fort William.

J. H. Black, general manager of the Spruce Falls Power and Paper Company, with office in Toronto, has been added to the directorate of the De Havilland Aeroplane Company.

Many Toronto paper merchants are creditors to the extent of $6,000 or more in the failure of the United Press, one of the city's largest printing establishments. The registrar in bankruptcy at Osgoode Hall this week was told of an offer of $120,000 cash for the assets of the defunct company, which, it was stated, would realize 40 cents on the dollar. There is another offer in from another Toronto printing house and decision has not yet been made as to acceptance. The total liabilities are upwards of $120,000, the company having been large printing contractors for Ontario Government work.

The Don Valley Paper Company, Ltd., Toronto, have issued a very neat sample book of Donvale Cover which they stock in white and nine colors.

Nashwaak Pulp and Paper Company, St. John, N. B., has begun its season's rafting operations at the boom of the mouth of the Nashwaak River where about 4,000,000 feet of logs will be sorted.

The recent visit to Port George, B. C., by Charles H. Blakie, of Edmonton, and George W. Erb, of Winnipeg, has given rise to the report that the McArthur mill project, which contemplated the erection of a pulp mill on the Hudson's Bay addition, is due for revival. It is not known when building operations will be commenced, but it is stated that decision will be reached by directors of the Northwest Lumber Company following receipt of reports from Mr. Blakie and Mr. Erb.

According to A. W. Gray, Mayor of New Westminster, B. C., who recently returned from a visit to New York and other eastern cities, financial arrangements have been concluded for the erection of a pulp mill on Lulu Island, involving an expenditure of a million and a half dollars. Atterbury Brothers, financiers and pulp operators of New York, and Howard T. Cole financier of New York, are interested in the project. Capital will be provided up to $3,000,000 for the mill, timber limits and reserve. A market for the pulp is already assured, said the Mayor. The company is being incorporated in Ottawa.

The largest shipment that the Northern Foundry and Machine Company of Port Arthur has ever made left the plant a few days ago consigned to the Mersey Paper Company, at Liverpool, N. S. It consisted of eight deckers for the paper mill there, managed by Colonel C. H. L. Jones.

Brotherhood Election To Be Spirited

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., June 24, 1929—A number of candidates on the ticket of the International Brotherhood of Papermakers will be vigorously opposed at the election of officers this coming fall. Frank P. Barry, first vice-president of the organization and well known to locals throughout this country, is to face opposition and one person has already announced that he will enter the race although his identity is being concealed at the local headquarters in this city. William R. Smith, head of the organization, is a candidate for re-election this fall and will also face opposition. Locals may begin to nominate as early as June 25 and August 8 has been fixed as the last day for filing nominations after which the ticket will be made up. This coming fall's election promises to be one of the most exciting in the history of the union. President Smith is now in Boston conferring with the Great Northern Paper Company from where he will proceed to Quebec for a conference with the Abitibi Company relative to a mill at Beaupre which is not included at this time in any wage and working agreements between the company and the union.

Meacham Lumber Co. Incorporates

[FROM OUR REGULAR CORRESPONDENT]

LYON FALLS, N. Y., June 24, 1929—Harry P. Gould, head of the Gould Paper Company is the largest stockholder in a new firm to be known as the Meacham Lumber Company which was incorporated this week under state laws at Albany with a capital of $300,000. He holds 2,750 shares of stock in the organization. Other directors and stockholders include John E. Johnston, of Port Leyden, with 2,749 shares and William L. Allen, of Malone, holding one share. The incorporation papers were filed through Attorneys Allen and McClary, of Malone.

O. M. Porter Resigns As Secretary of A.P. & P.A.

Resignation Will Be Effective August 1 When Major Porter Becomes Manager of the National Kraft Paper Manufacturers Association Which Was Formed About Six Months Ago— C. W. Boyce, The Association's Assistant Secretary Will Be Acting Secretary

President S. L. Willson has announced the resignation of Major Oliver M. Porter as secretary and treasurer of the American Paper and Pulp Association, effective August 1, 1929.

Major Porter, who has been with the Association since 1920, leaves it now with the best wishes of his many friends throughout the paper industry for success in his new work as manager of the National Kraft Paper Manufacturers Association, of which J. P. Hummel of the Hummel-Ross Fibre Corporation is president and L. Bittner of the Manufacturers Paper Company has been acting as secretary since its organization six months ago.

MAJOR O. M. PORTER

Major Porter brings to the National Kraft Association a very wide experience in association work in the paper industry, having been secretary, at one time or another, of the following organizations, in connection with his former work as assistant secretary of the parent association: Binders Board Manufacturers Association, Glazed and Fancy Paper Manufacturers Association, National Gummed Tape Association, U. S. Pulp Producers Association, Waxed Paper Manufacturers Association, Salesmen's Association of the Paper Industry, Woodlands and Supply and Equipment Sections of the American Paper and Pulp Association.

He is also vice-president of the local association of Trade Association Executives in New York City and is thus in close touch with all the developments in the progress of organized, co-operative effort which is playing such an important part in modern business.

As secretary-treasurer of the American Paper and Pulp Association, Major Porter's work has been characterized by a focalization of the Association's efforts on the industry's major common problems, by a development of the Association's statistical service and by a very successful organization of the industry for united action towards securing adequate tariff protection for American-made papers in the present tariff readjustment.

During the past six months Major Porter has issued a series of pamphlets describing the history and work of the American Paper and Pulp Association, which have been given wide distribution throughout the industry. These pamphlets have been designed to define and clearly explain the organization, purpose, activities and accomplishments of the Association.

As secretary of the Association's Committee on Development, Major Porter has made an analysis of the fundamental problems of the paper industry and the part which the Association might play in meeting and solving those problems. The results of his study have been presented to the Association's Executive Committee.

No announcement has yet been made as to the appointment of Major Porter's successor, other than that Charles W. Boyce, the Association's Assistant Secretary and Forester, will carry on as Acting-Secretary for the time being.

Under date of June 24, Major Porter sent out the following letter announcing his resignation:—

"You may have heard that I have resigned as Secretary and Treasurer of the American Paper and Pulp Association to accept the managership of the National Kraft Paper Manufacturers Association. I do not want to leave the parent association, however, without telling you and other members how much I have appreciated your cooperation and support.

"During the nine years that I have been with the Association I have come to realize more and more that it is not so much a question of money or organization which makes or breaks an association as it is a question of MEN. With the loyal, active and envisioned backing of the executives of any industry, its association cannot fail to render necessary and useful service. Without that support no association can achieve success regardless of the energy and ability of its executive officers.

"The paper industry of the United States must have a representative and adequately supported national association, through which the industry, as an industry, can handle its fundamental problems of protection and development.

"I sincerely hope that President Willson and the Association's Executive Committee will receive the entire industry's support in their efforts to insure its progress and to develop the American Paper and Pulp Association to a point of commanding usefulness. Such support must be active support, with your time and your company's finances backing their efforts, if the Association is to succeed, as you would have it succeed, in meeting the fundamental problems of the industry.

"This can be done, but it will require bold planning, adequate financing and active cooperation. So, in turning over the Association's administration to another, I earnestly solicit your continued support of its activities and development so that the American Paper and Pulp Association may continue its long record of successful service to the Paper Industry of the United States."

Demand for Paper Satisfactory In Chicago

Record for First Half of Year Bids Fair to Show Improvement Over Corresponding Period of Preceding Year—Fine Paper Market Continues to Exhibit Strong Undertone—Coarse Paper Market In Normal Condition—Book and Covers Fairly Stable

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, ILL., June 24, 1929.—Evidence of the near approach of the summer slackening in business is appearing in Chicago territory as far as most of the paper lines are concerned. Termination of the second quarter of the year has caused paper merchants interviewed to grow retrospective in their discussion of business in general. The first half of the year bids fair to be an improvement over the same period in 1928 just as the coming half year gives evidence of out doing that period last year. Two of the bad spots in the market, as reports have it, were the jumbled up condition of the news print market during the early part of the season and the price situation in the board market. The former condition seems to have practically righted itself and news print is said to be running along in normal fashion. The price situation is still giving board merchants trouble and misgivings despite a fair demand for their product.

Ground wood papers have experienced the bug-a-boo of over production which will probably work itself out to a happier ending before the first of the year. Fine papers, especially the higher priced grades, have had a good half year, all things considered, and fine paper merchants will bear the summer slump with better grace than in 1928.

Wrapping papers and tissues went through a good Easter season and have acted normally and thus more or less satisfactorily. Book and cover paper markets have been fairly stable and prices steady. Unusual interest in waste papers, especially in lower grades, is said to have characterized the latter part of the second quarter which terminates next week.

Paper Salesmen Win Golf Prizes

Tom Donahue, Warren Manufacturing Company, and chairman of the golf committee of the Salesmen's Association of the Paper Industry, Chicago Division, comes out with the announcement of the winners of the second of the popular golf events, this one having been held at the Long Beach Country Club, Long Beach, Indiana. Twenty paper salesmen competed, having two extra prizes offered by Phil Howard as an added incentive. Low net was carried off by Claude Morian, sales manager of the Cherry River Paper Company. Low putts for the eighteen holes represented a prize for John Wesley of the Rhinelander Paper Company. R. C. Johnson, of International, won the blind bogey prize while the two special prizes offered by Phil Howard were carried off by Elmer Schmidt of the New York offices of the International Paper Company and by Jim Coy, of the Flambeau Paper Company. The third of the summer golfing events is arranged for July 18 and the place is the sporty Elmgate Country Club which has already been the stage of some wicked golfing battles on the part of the paper salesmen.

Use of Cornstalk Paper Growing

From the number of newspapers which reach the desk of the writer of this letter most of the Illinois weekly newspapers and many of the dailies have had a fling at anniversary numbers, special issues, etc., printed on cornstalk paper. While many of the papermen here in Chicago say that pulp made from cornstalks has not sufficient opacity to be a good news print they do, nevertheless, see something in it as a book and writing paper. While the newspapers are featuring the cornstalk news print, many banks and service organizations are boosting the farm product through its use in the statements, letter heads, etc. The latest move from this source has been from the Illinois Chamber of Commerce, which sent out its first group of statements printed on cornstalk bond, ripple finish. The State Chamber was active in securing the Cornstalk Products Company for Danville, Ill., and is now assisting in finding locations for other plants. Facilities for the making of pulp from cornstalks must include an adequate water supply and motor and rail transportation plus close proximity to plenty of cornstalks.

News of the Trade

Westvaco Inspirations for Printers, Number 46, is cleverly written "from the labor-saving appeal" and contains a number of tips for printers to use in gaining additional accounts. Illustrations of advertisements featuring the labor saving appeal, of the labor saving to be found in well prepared containers and of other themes with the labor saving appeal feature this issue. An interesting discussion of just how advertising, direct mail and newspaper, fits in with radio broadcasting, is also worth reading.

Pages are printed on several grades of West Virginia Pulp and Paper Company products, including Marquette Enamel, Inspiration Super India and Westvaco Folding Enamel. The West Virginia Pulp and Paper Company also sent out this week from offices at 35 East Wacker Drive, Chicago, the price list on stock size and weights in standard mill grades as of June 15, 1929. Fifteen grades of West Virginia papers are quoted along with ream price, sizes, weights, basis and packings.

A chart of suggested colors for simplifying departmental correspondence is included in interesting direct mail from the Howard Paper Company which also includes some useful information for bond paper users.

The A. M. Collins Manufacturing Company, with sales offices in the Conway Building, Chicago, is featuring Laidtone, a coated paper with a laid effect which is proving very popular with some of Chicago's largest agencies and advertisers. A demonstration portfolio of Laidtone Book is useful to the advertiser in getting first hand information on this popular coated paper.

Paper Concerns Not in Contempt

[FROM OUR REGULAR CORRESPONDENT]

HUDSON FALLS, N. Y., June 24, 1929—Supreme Court Justice John C. Crapser has denied the motion of the F. J. & G. Railroad Company asking that the Hudson River Regulating Board, Indian River Company, International Paper Company, Finch, Pruyn & Co. and the Union Bag and Paper Company be placed in contempt for making an alleged tender of payment for condemnation purposes. An order to that effect has been filed in the office of the Fulton county clerk in Johntown. The motion, made by Attorney Wesley H. Maider for the plaintiff with Attorney Edward C. Bailly, of Hornblower, Miller & Garrison of New York, as counsel, was based upon the recent alleged tender of payment to the railroad company under a court order amounting to over $1,600,000.

The plaintiff contended that the tender of the certified checks by the Regulating District to the railroad firm was refused by the latter and that the board of the Hudson River Regulating District by making the tender did not put itself in a position to obtain possession of the plaintiff's railroad properties. The defendants have not taken any of the steps provided by the condemnation law to get possession of the plaintiff's property. The court held that "the mere tendering of certified checks by the defendants to the plaintiffs covering the award, interest and costs was not a violation of another previous order and therefore is not a contempt of court."

Paperboard Industries Association Meet

Members of the Paperboard Industries Association met at the Palmer House, Chicago, May 22-23, 1929. The Folding Box, Paperboard and Container Group meetings were held Wednesday, May 22, and the General Meeting of all members of the three groups in joint session was held Thursday afternoon, May 23.

Folding Box Group Meeting

H. H. Stonebarger, of the Globe Folding Box Company, Cincinnati, Ohio, Group Vice-President, presided at the meeting of the Folding Box Group. This meeting was unusually well attended, the members participated actively in a discussion of the problems of the folding box industry. A number of manufacturers of folding boxes and suit boxes were in attendance as guests. Eight additional companies were elected to membership in the Folding Box Group.

A resume of subjects considered at this meeting follows:

Extending the Use of Folding Boxes

A detailed report was submitted showing progress made in inaugurating and extending the use of folding boxes for the packaging of a number of articles, which may advantageously be packaged in folding cartons. Several of these articles had never before been packaged in folding boxes, and indications are that a considerable amount of new business will be available to the industry. A progress report was submitted showing the work that is being done in the matter of standardizing the shape and size of folding boxes for specific articles.

Statistical-Accounting Subjects

In connection with the above, Grafton Whiting, the Association's Statistician, reported in detail with respect to—

1. Census of the Folding Box Industry, including an analysis of returns received to date.
2. Analysis of Financial Figures reported to U. S. Department of Commerce.
3. Cost Estimating Manual, now being prepared for the Folding Box Industry.
4. The issuance of a Financial Questionnaire to develop the result of operations in 1928.

Trade Practice Administration

Vice-President Stonebarger reported with respect to the participation of the Folding Box industry in the Trade Practice Administration.

Paperboard Group Meeting

The Paperboard Group meeting Wednesday afternoon, May 22, was presided over by Hugh Strange, of the John Strange Paper Company, Menasha, Wis., Group Vice-President. The meeting was well attended.

Vice-President Strange submitted a most interesting report, in which he covered the situation that has obtained in the paperboard industry. This report, which is included in the minutes of the meeting, was considered to be a most excellent presentation of the situation that has existed in the industry and many members have commented upon it favorably and have requested extra copies.

Four additional companies were elected to membership in the Paperboard Group.

Eliminating the Manufacture and Use of Inferior Container Board

The above subject, which was reported on in detail by General Manager Browder was discussed at length and a number of suggestions were made looking to the elimination of the use of container boards which fail to meet the governing specifications.

Attention was called to the activity and drastic action on the part of the railroads in embargoing boxes which failed to comply with the carriers' specifications and it was the sense of the meeting that board manufactured and sold for use in test shipping containers must fully meet the specifications and that the board manufacturer has a direct responsibility in this regard.

The showing with respect to the testing of boxes collected from shippers during the past two months indicated an appreciable improvement; in fact, it was the best condition that has been found since this service was inaugurated.

Statistical-Accounting Subjects

Grafton Whiting, Statistician, reported in detail on the subjects mentioned below:

1. Tonnage included in the Paperboard Statistics.
2. The Increase in the Production per Machine Hour.
3. The Average Number of Days' Work per Week in the Paperboard Mills.
4. Census of the Paperboard Industry.
5. Financial Figures reported by U. S. Department of Commerce.
6. The issuance of a Financial Questionnaire to develop the result of Operations in 1928.

Container Group Meeting

H. C. Krannert, of the Inland Box Corporation, Indianapolis, Ind., Group Vice-President, presided at the Container Group meeting.

Vice-President Krannert reposted in detail regarding a meeting of the Association's Executive Committee, which had been held on May 21.

J. P. Brunt, Chairman, Board of Directors, Trade Practice Administration, reported briefly regarding the trade practice organization and urged all container manufacturers to attend the meeting of the industry, to be held on the following day.

General Manager Browder Reports

General Manager Browder submitted a comprehensive report, which reviewed a number of subjects of prime importance to the container manufacturing industry and its customers.

Special reference was made to a number of changes in packing regulations and container specifications, which have been passed upon by the Consolidated Classification Committee, due notice of which will be published in a Supplement to the Classification. Members of the Association will be notified in advance as to the date the changes become effective. Information was also given in regard to instances wherein the Committee declined to authorize certain requests for changes.

The report also summarized the results of the special inspection service, wherein boxes supplied by shippers are turned over to the Association for examination and test. (A summary showing the results of the inspection work has been mailed to all members with the Minutes of the General Meeting of the Association.)

Statistical-Accounting Subjects

W. J. Cassady, a member of the Statistical-Accounting Committee, introduced Mr. Grafton Whiting, the Association's Statistician, and the latter reported in detail for the Committee on the following subjects:

1. Increased Participation in the Statistical Reports.
2. The Issuance of a Financial Questionnaire to Develop the Result of Operations in 1928.
3. The Census of the Container Industry.
4. Analysis of Financial Figures published by U. S. Department of Commerce.

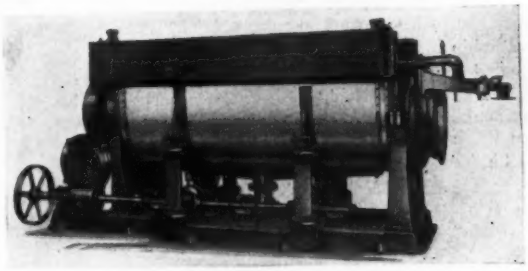
New Members of the Container Group

Five additional companies were elected to membership in the Container Group.

General Meeting of the Three Groups

The General Meeting was presided over by J. J. Brossard of the

The BIRD SCREEN



FOR YOUR PAPER

No matter what kind or grade you make we can give you definite facts and figures to prove that the Bird Screen is the screen to handle YOUR stock.

Isn't this worth looking into?

Now, as always, the Bird Screen represents the last word in paper screens.

BIRD MACHINERY

BIRD MACHINE COMPANY

3025

South Walpole Massachusetts

Fort Wayne Corrugated Paper Company, Fort Wayne, Indiana, the President of the Association.

Executive Committee's Report

President Brossard announced that a meeting of the Executive Committee had been held at the Palmer House, Chicago, Tuesday, May 21, 1929, and he submitted a report containing a resume of subjects considered at the meeting, together with record of the action or the recommendations of the Executive Committee with respect thereto. The report covered the following items:

1. Finances.
2. The Committee's recommendations with regard to companies which have made application for membership.
3. Cooperation with Manufacturers of Set-Up Paper Boxes and Paper Cans and Tubes in the matter of the Trade Practice Rules.
4. Containers for the Shipment of Articles not now shipped in Corrugated and Solid Fiber.
5. The proper Nomenclature to describe boxboard and boxes composed of all-sulphate and mixed-sulphate materials.

Election of New Members

The companies named below were unanimously elected and welcomed to membership in the Groups mentioned below:

Ajax Corrugated Paper Co., St. Louis, Mo., Container; Cedar Rapids Paper Box Co., Cedar Rapids, Iowa, Container and Folding Box; Continental Paper Prods. Co., Denver, Colo., Folding Box; Dearborn Paper Prods. Co., Chicago, Ill., Container; Firstbrook Boxes, Ltd., Toronto, Canada, Container and Folding Box; Hollywood Paper Box Corp., Hollywood, Cal., Folding Box; Ideal Corrugated Box Co., Parkersburg, W. Va., Container; Michigan Carton Co., Battle Creek, Mich., Paperboard and Folding Box; Ontonagon Fiber Company, Ontonagon, Mich., Paperboard; Roanoke Fiber Board Co., Roanoke Rapids, N. C., Paperboard; Seneca Fiber Products Co., Skaneateles, N. Y., Container; Stange Box Company, Chicago, Ill., Folding Box; Sutherland Paper Co., Kalamazoo, Mich., Paperboard and Folding Box; and Trenton Folding Box Co., Trenton, N. J., Folding Box.

Generl Manager's Report

General Manager Browder submitted a concise report of the principal activities of the Association since the last meeting. Specific reference was made to the following:

1. Work of the Staff in connection with Trade Practice Administration Zone Meetings.
2. Membership Status—Plea that Members use their efforts to secure the Membership of Companies not now enrolled.
3. Report of the Federal Trade Commission in the matter of Open Price Associations.
4. Review of the Special Inspection Service to Maintain the Quality of Corrugated and Solid Fiber Boxes. (Summary of results is attached.)

A copy of the General Manager's report was included in the minutes of the meeting.

Sales Promotion Committee's Report

Chairman J. M. Arndt reported that the Sales Promotion Committee had met in Chicago, Tuesday, May 21, with a good attendance, and that special consideration had been given to the various fields in which the Association representatives should be engaged in the near future. He pointed out that the amount of work to be accomplished will, of course, be in proportion to the amount appropriated for the service. He strongly urged that members make use of the material contained in the printed reports, issued every 60 days, to the end that each member company may get its fair share of the business which is developed. He particularly urged that members observe to the letter the specifications which are contained in the reports from time to time, so that no unsatisfactory boxes will be manufactured for use in the new fields.

Chairman Arndt thereupon introduced A. W. Luhrs, Sales Promotion Representative, and the latter reported in detail for the Committee, explaining the work that had been carried on under the direction of the Committee during the past 60 days.

Next Meeting

The next meeting of the Association will be held at the Westchester-Biltmore Country Club, Rye, New York, on Wednesday, July 17, and Thursday, July 18, 1929.

Trade Practice Administration

Members of the Paperboard, Container and Folding Box Industry Committees, who had been duly elected as representatives of the several zones established in connection with administering the trade practice rules, approved for the industry by the Federal Trade Commission, met at the Palmer House, Chicago, Tuesday, May 21.

Each of the three Industry Committees duly elected its Chairman and its representatives on the Board of Directors, as follows:

Paperboard Industry Committee

CHAIRMAN OF INDUSTRY COMMITTEE AND MEMBER OF BOARD OF DIRECTORS: Hugh Strange, John Strange Paper Co., Menasha, Wis.

MEMBERS OF BOARD OF DIRECTORS: S. W. Backus, Minnesota & Ontario Paper Co., Minneapolis, Minn.; E. T. Gardner, The Gardner & Harvey Co., Middletown, Ohio; Geo. W. Gair, Robert Gair Company, New York, N. Y.; W. G. Shortess, Liberty Paperboard Co., Bogota, N. J.

Container Industry Committee

CHAIRMAN OF INDUSTRY COMMITTEE AND MEMBER OF BOARD OF DIRECTORS: James B. Fenton, Buffalo Box Factory, Buffalo, N. Y.

MEMBERS OF BOARD OF DIRECTORS: O. B. Andrews, O. B. Andrews Company, Chattanooga, Tenn.; J. P. Brunt, Container Corp. of America, Chicago, Ill.; Sidney Frohman, The Hinde & Dauch Paper Co., Sandusky, Ohio; I. Etra, Star Corrugated Box Co., Inc., Maspeth, L. I., N. Y.

Folding Box Industry Committee

CHAIRMAN OF INDUSTRY COMMITTEE AND MEMBER OF BOARD OF DIRECTORS: Paul N. Myers, Waldorf Paper Products Co., St. Paul, Minn.

MEMBERS OF BOARD OF DIRECTORS: E. G. Gereke, Gereke-Allen Carton Co., St. Louis, Mo.; L. G. Fell, Michigan Carton Company, Battle Creek, Mich.; H. C. Stevenson, Rochester Folding Box Co., Rochester, N. Y.; H. H. Stonebarger, The Globe Folding Box Co., Cincinnati, Ohio.

Meeting of Board of Directors

A meeting of the Board of Directors was called immediately after the meetings of the Industry Committees, and the following officers were duly elected:

CHAIRMAN OF BOARD OF DIRECTORS: J. P. Brunt, Executive Vice-President, Container Corporation of America, Chicago, Ill.

VICE-CHAIRMEN OF BOARD OF DIRECTORS: Hugh Strange, John Strange Paper Co., Menasha, Wis.; Paul N. Myers, Waldorf Paper Products Co., St. Paul, Minn.

The Board of Directors formally appointed the following as members of the Trade Practice Administration staff: General Manager and Treasurer—G. R. Browder; Accountant—Grafton Whiting; Educational Director—Irwin W. McLean; Secretary—H. S. Adler.

At its meeting, the Board of Directors gave consideration to the most effective means for properly administering the Trade Practice Rules and a full report covering the action of the Board of Directors has been transmitted to each company in the industry. A copy of the letter written by J. P. Brunt, Chairman of the Board of Directors, addressed to each paperboard, container and folding box manufacturer, follows:

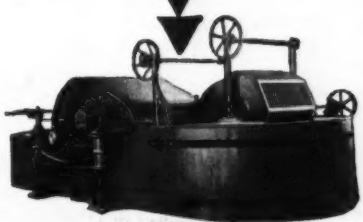
To the Paperboard, Container and Folding
Box Industry of the United States:
Gentlemen:

There is enclosed herewith for your record a complete report

Modernized Beaters

THE Downingtown Holland Beater incorporates every refinement for simplicity and economy of operation required in a modern beater room.

Write for our new 20 page bulletin No. 113 describing our complete line of modern beaters,—no obligation whatever.



DOWNINGTOWN
Manufacturing Company
Downingtown Pa. U.S.A.

of a meeting of the Industry held in Chicago, Thursday morning, May 23, 1929, which meeting was attended by a large number of manufacturers.

If you have not already done so, you are invited and urged to enroll in the new Group, which is known as the Trade Practice Administration. Any company which does not enroll, cannot expect to participate in the conduct of the Administration.

Even though you are already a member of the Paperboard Industries Association, please sign and return the enclosed form so that your company may be duly enrolled in the Trade Practice Administration. No additional charge is to be made against companies which are members of the Paperboard Industries Association.

For companies which are *not* members of the Paperboard Industries Association, a special basis of dues has been adopted to cover their participation in the Trade Practice Administration; namely, a charge of 2 cents per ton of product (based on 1928 production), subject to a minimum charge of $100.00 per annum. To companies which are not members of the P. I. A., there is also enclosed a form on which to report their tonnage figures, to be used in basing their dues in the Trade Practice Administration.

There is also enclosed herewith a form which you are requested to fill in, indicating that you subscribe to the Trade Practice Rules which have been approved for your industry by the Federal Trade Commission. Please bear in mind that Group 1 rules are now effective. The Group 2 rules will become effective after the agreements have been signed and filed with the Federal Trade Commission, Washington, D. C. We ask that you kindly sign the attached agreement and return same to Trade Practice Administration, Paperboard, Container and Folding Box Industries, Room 2233, 608 South Dearborn street, Chicago, Illinois. All signed agreements will be held in the Association office and will not be forwarded to the Federal Trade Commission until after the next meeting of the Trade Practice Administration, which will be held as follows: At the Westchester-Biltmore Country Club, Rye, N. Y., Thursday, July 18, 1929.

It is naturally expected that every reputable manufacturer of paperboard, corrugated and solid fiber containers and folding boxes will take pride in being identified with this activity, giving to it not only his moral support but also his financial assistance, paying his fair share of the necessary expense.

In accordance with the above, kindly return the executed forms to the office of the Trade Practice Administration, Paperboard, Container and Folding Box Industries, Room 2233, 608 South Dearborn street, Chicago, Ill., namely—

1. Your application for enrollment in the Trade Practice Administration. (To be signed by all Companies.)

2. The statement showing your tonnage for 1928 (to be used as a basis for the charge against companies which are not members of Paperboard Industries Association).

3. The agreement with the Federal Trade Commission covering acceptance of the rules. (To be signed by all companies.)

Anticipating your wholehearted cooperation and assuring you that your suggestions for improvement in the plan will be at all times welcomed, I am,

Yours very truly,
J. P. BRUNT,
Chairman, Board of Directors, Trade Practice Administration.

Smith-Welded Oil and Gas Line Pipe

Smith-Welded Oil and Gas Line Pipe is comprehensively described in a profusely illustrated bulletin just published by the A. O. Smith Corporation, manufacturers of steel products, of Milwaukee, Wis.

This new system has proved one of the great engineering and industrial achievements of our time, inasmuch as it has practically revolutionized the tubular industry.

The bulletin also contains valuable engineering data. Copies may be obtained from the A. O. Smith Corporation, if desired.

Obituary

Henry W. Wendt

[FROM OUR REGULAR CORRESPONDENT]

BUFFALO, N. Y., June 24, 1929.—A leader in the heating and ventilating industry was lost Wednesday, June 12, when Henry W. Wendt, president of the Buffalo Forge Company, died after a brief illness of pneumonia, at his home in Buffalo, N. Y. Mr. Wendt would have reached the age of 67 in a few days, and during his entire business life had been connected with the company of which he had been the active head for many years.

Established in 1878 by his late brother, William F. Wendt, the company first manufactured the blacksmiths' forges, from which it took the name, as well as other blacksmith shop equipment. Himself a natural engineer, though with only a public school education, Mr. Wendt was soon placed in charge of manufacturing activities and frequently introduced new methods into the various departments.

A great many inventions of practical value have been placed to the credit of Mr. Wendt, and to an unusual degree he possessed the combination of an inventive mind with a sense of practical value, which undoubtedly had much to do with his success. Mr. Wendt was for many years especially interested in research work, though he did not dignify it by that name. Facts were what he wanted, and he was willing to spend money to obtain them, which was rather unsual thirty years ago. At that time accurate knowledge of fan performance was limited and certainly was nowhere available in published form, but the Buffalo Forge Company was the first to publish performance data for general use.

He made it possible for Willis H. Carrier to start the work first on heating, and later on air conditioning, which brought both of these nearer to being exact sciences, and which Mr. Carrier has since carried into so many fields then unthought of. When the American Society of Heating and Ventilating Engineers established the Research Bureau and asked the industry for help, Mr. Wendt was the first to pledge his support over a term of years and to urge other manufacturers of ventilating apparatus to do the same.

He was the first president of the National Association of Fan Manufacturers, was one of the founders of the Hydraulic Association, a member of the American Society of Heating and Ventilating Engineers, and American Society of Mechanical Engineers, and other engineering and trade associations. He was a 32d Degree Mason, a member of the Commandery, a Rotarian, and a former director of the Chamber of Commerce.

Surviving him are his widow, Edith M. Wendt; and two sons, Edgar F., and Henry W. Wendt, Jr.

Finch, Pruyn Sluiceway Nearly Ready

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y., June 16, 1929.—Finch, Pruyn & Co. are constructing a sluiceway between the Glens Falls feeder canal and the firm's slasher house which is expected to facilitate the handling of pulpwood. The state authorities have given the necessary permission for the construction of the sluice and it is expected that it will be in operation within a few weeks. The sluice is being built under a towpath and railroad tracks and the logs will be driven from the canal through the sluice and into the mill. At present the logs are carried by conveyors but the new system will enable a few men to handle 200 cords of wood in eight hours whereas the present system requires a large force to handle 100 cords in eight hours.

Representatives of the company are scouring several states in an effort to secure fifty men for employment on the company's lumber tract near Newcomb. In years gone by there were always more laborers in this district than required but this year it has been found necessary to comb Northern New York, Vermont, New Hampshire and Maine to secure the lumberjacks. The company plans to cut 15,000 cords of pulpwood on its large tract near Newcomb. Last year about 14,500 cords were cut.

Circumstantial Evidence.

Human witnesses may be mistaken or dishonest, but when the facts show for themselves the evidence is conclusive.

Mark Twain joked about it and said it could be proven by circumstantial evidence that a pencil, sharpened by a woman, had been done so by her teeth even though she did use a knife. Mark Twain was a humorist, but our Courts take circumstantial evidence seriously and often value it above the spoken word.

When it comes to Beating Engines, it is self-evident that some are pretty bad. They use too much power; they require too much man labor; and they make inferior paper. No verbal testimony is needed to prove that they should be replaced by Dilts New Type Beaters.

Reverse the argument and the results prove for themselves that Dilts New Type Beaters travel faster, beat better, load and dump quicker and require less power.

You don't need anybody's opinion about your own Beaters. Look them over yourself and judge by the circumstantial evidence. And remember "your paper is made in your Beaters."

VICE-PRESIDENT

DILTS MACHINE WORKS, INC.
Fulton, New York

Jagenberg Patent Roll Wrapping Machine

An article in the PAPER TRADE JOURNAL in January, announcing the granting of letters patent to the Jagenberg-Werke, Akt.-Ges., of Dusseldorf, Germany, on their automatic roll wraping machines aroused considerable attention in the paper industry because of the ingenious character of the machines. Realizing, even from the meager information presented, the great needs for these machines in the mills here, Ogden Brower, Jr., president of the Gibbs-Brower Company, Inc., 261 Broadway, New York, at once visited Germany to inspect these machines. After confirming his impressions as to their practicability, Mr. Brower immediately concluded arrangements to act as sole agent for the machines in the United States and Canada.

The process is known as the Jagenberg Shell Packing for the Protection of Mill Rolls; and the advantages of this method of packing are: first, that damage during transportation is impossible; and secondly this method is cheaper, considering the results obtained, than any other method of wrapping rolls of paper.

Users of paper often complain of the state in which the rolls arrive after the journey from the paper mill. Not only are the outer layers wasted, but the ends of the rolls are also considerably damaged. These faults are attributed to lack of care on the part of the paper maker, although the real causes are insufficient and unsuitable packing and bad handling during transit.

The only way to avoid this condition and the disastrous results of same is to pack the rolls in such a way that even the most careless and rough transportation cannot cause damage.

The New Jagenberg Paper Roll Wrapping Machines protect mill rolls in the best possible manner at lowest cost.

A solid shell, consisting of a number of layers of an ordinary cheap grade of wrapping paper is welded together under heavy pressure with silicate of soda and is wound around the body of the roll and folded over at the ends. According to size, one hundred to two hundred rolls, equal to 70 to 100 tons and up of paper, can be wrapped on one of these machines in an eight-hour day, requiring the attendance of two or three persons only.

Based on a roll of high-grade American magazine paper in rolls 30 inches in diameter and 60 inches in width, and weighing approximately 1500 lb. to the roll, the Jagenberg Type RRPG, or

LOADION JAGENBERG SHELL-PACKED ROLLS IN HAMBURG HARBOR

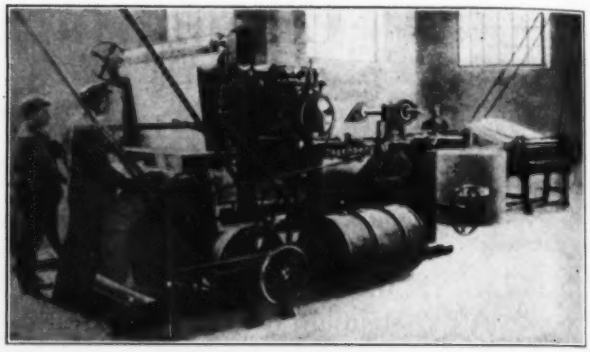
large size roll wrapping machine, can accomplish the following results:

Occupying an overall floor space of 15 feet by 18 feet, compared with the expanse of floor space necessary for the present method of wrapping in our paper mills, three operators can wrap 200 of these rolls in 8 hours, or a total of 150 tons of paper. This is figuring on a welded paper shell on each roll, approximately ⅛ inch in thickness.

The number of wraps of paper and the amount of silicate of soda applied, are absolutely under the control of the operators at all times.

This surely constitutes a fair saving of time, labor and costs, not only compared with crate packing, but with all other methods of packing employed up to now, as the operator can control absolutely the number of wraps and the amount of silicate of soda used in wrapping the rolls.

The official surveyor at one of the largest Continental ports, after careful comparison and investigation, expressed the opinion that Jagenberg shell-packed mill rolls are better able to stand the



ROTOGROSS OR TYPE RRPG—LARGE SIZE-MACHINE.

strain of truck, rail and sea transport than ordinarily packed or crated packed rolls.

The Jagenberg Roll Wrapping Machine is made in three standard sizes, for large, medium and small mill rolls.

The Type RRPG is manufactured to handle rolls up to 64 inches and 84 inches in width, and up to 40 inches in diameter. Machines of this type—or, in fact, of any of the other types—can be furnished for any width rolls desired, according to requirements, on special order.

The packing station is arranged at floor level. Rolls can be

UNLOADING SAME ROLLS AT RIO DE JANERIO. (NOTE PERFECT CONDITION OF ROLLS).

placed on the two carrying drums without exertion. Driven feed rollers bring the wrapping paper forward, which is wound around the roll under heavy pressure. The first layers are left uncoated until the coating station is brought into action by means of a hand lever. Any number of layers can be wound; 3 to 4 are recommended for inland transport; 6 for oversea shipment. The packing paper should be 24 inches wider than the roll itself, so that 12 inches on either side can be folded over the ends of the roll. These should be previously protected by the insertion of card board discs. A paper disc is afterwards placed over the end folds of the wrapper. A wire to facilitate easy opening of the

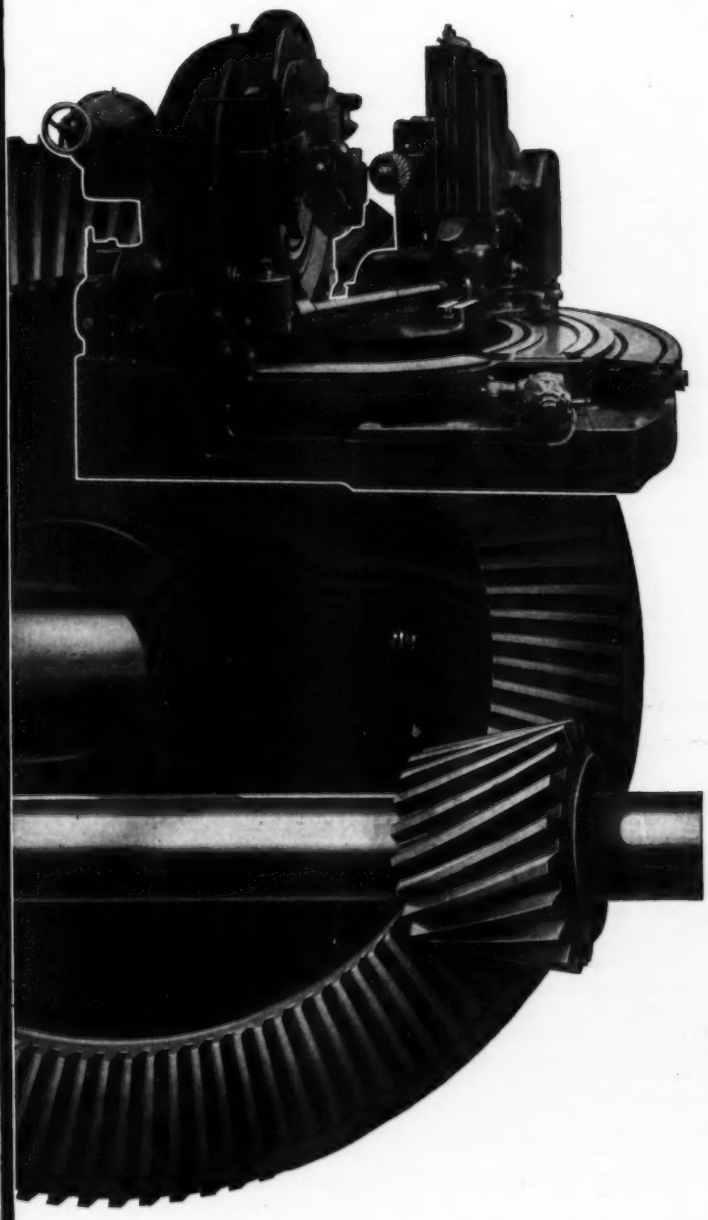
HYPOID GEARS

[*up to 60″ Pitch Diameter*]

THESE gears, which are similar to those used in the rear axles of automobiles, are now available in larger sizes for industrial use. They are cut on the Gleason 60″ Hypoid Generator illustrated at the right.

The most important advantage of Large Hypoids is that both gear and pinion shafts can continue past each other. This is especially valuable when it is desired to mount several pinions on one shaft.

Hypoids also have all the advantages of Spiral Bevels, they are smooth and quiet in operation, and can be run at high peripheral speeds. Full information on the gears or the cutting equipment will be sent on request.



GLEASON WORKS

Manufacturers of Bevel Gears for over Sixty Years

1000 University Ave., Rochester, N.Y.

"Improve your product and reduce your costs"

wrapper is inserted between the first layers. The roll is then automatically lifted off the drums and removed to the pressure station, where it remains under mechanical or hydraulic pressure until the next roll takes its place.

Two auxiliary machines for end covers are required; one a paper and board disc cutting machine, known as their type RS for cutting discs up to 48 inches in diameter, and the other a sheet gluing machine, known as their Type Z 11, with a working width up to 40 inches in diameter. The latter machine, of course, being used to automatically put the glue on the discs that are pasted on the ends of the rolls, at the last process under hydraulic pressure.

The medium size machine is known as the Type RRPM with Patented See-Saw Paper Lift and can be easily handled by one man or by two girls, as it is so constructed that no lifting is required, or heavy work, in handling the rolls. The method of packing is similar to that already described in connection with the Type RRPG machine, with the exception that the roll of packing paper and the coating station are arranged underneath this machine.

The carrying drums, driven from the main shaft, are in a convenient position for the manipulation of the end folds.

To facilitate the lifting of the rolls, a See-Saw Balance has been provided, which is a very ingenious affair, making the roll as it leaves the machine, automatically lift from the floor into position on the front end of the machine, the next roll ready for wrapping.

The small machine, Type RRPK, operates like the others only it is a one-man or one boy proposition, and is especially adapted for shell packing applied to rolls containing narrow coils, such as are wrapped for shipping by the paper mills and paper jobbers, as they come from the small slitting and rewinding machines—such as ribbon tape, adding machine rolls, ticker tape, etc., etc.

The Jagenberg-Werke have a great many of these machines in operation in Germany and in all the other paper manufacturing countries of Europe, including England and Scotland, and of the large size, Type RRPG machine for the paper mills, they have, at the present time, seventy-one (71) in use. The Jagenberg Roll Wrapping Machines have been adopted generally in the Continental paper mills.

Mr. Brower is prepared to show interested persons here Cine-Kodak motion picture films of the roll wrapping machines in actual operation in the German paper mills.

Schroon River Paper Co. Makes Improvements

[FROM OUR REGULAR CORRESPONDENT]

WARRENSBURG, N. Y., June 24, 1929—The Schroon River Pulp and Paper Company is undergoing a complete overhauling of its equipment and the entire plant will be shut down within a short time to allow for the completion of the work. It was announced, however, that the employees who desire to assist in the renovating of the plant will be given an opportunity to do so. A large force of machinists are installing new machinery in the pulpwood section which will allow of a substantial increase in production. Conveyors are also being installed and a new slasher will change and facilitate the method of handling the wood after it reaches the mill. Several other alterations which will be completed within a few weeks will bring the mill to a present day standard.

Walter Carr, of Rochester, who came here several weeks ago, has been placed in charge of the maintenance department of the mill and is supervising the extensive improvement work. He is an expert on papermaking machinery and is being given full authority to place the entire mill in an up-todate condition. William J. Quinlan, who since 1909 has been superintendent of the plant, resigned his position on Saturday to take effect immediately. During his long period of service here he has been prominent in educational affairs as a member of the Warrensburg Board of Education. He has already had many good offers from leading paper firms but plans to take a vacation before resuming business connections.

Trade Mark Department

CONDUCTED BY NATIONAL TRADE-MARK CO., WASHINGTON, D. C.

The following are trade mark applications pertinent to the paper field pending in the United States Patent Office, which have been passed for publication and are in line for early registration unless opposition is filed promptly. For further information address National Trade Mark Company, Barrister Bldg., Washington, D. C., trademark specialists. As an additional service feature to its readers, PAPER TRADE JOURNAL gladly offers to them an advance search free of charge on any mark they may contemplate adopting or registering.

STYL O GRAPH No. 247,379. Charles W. Mayer, Rochester, N. Y. For coated recording paper in the nature of a duplicating paper used in place of carbon paper.

NORTHERN TRIPLE SAFETY No. 247,811. Northern Bank Note Company, Chicago, Ill. For bank and commercial paper.

PYTHON No. 281,260. The Champion Coated Paper Co, Hamilton, Ohio. For mineral-coated paper suitable for printing.

HY-ART No. 281,261. The Champion Coated Paper Company, Hamilton Ohio. For mineral coated paper suitable for printing.

TALISMAN No. 281,263. The Champion Coated Paper Company, Hamilton Ohio For mineral coated paper suitable for printing.

FORMAT No. 281,264. The Champion Coated Paper Company, Hamilton Ohio. For mineral coated paper suitable for printing.

BURT THE PERFECT CUP No. 277,468. The Vortex Manufacturing Company, Chicago, Ill. For paper cups.

GARAMOND No. 281,265. The Champion Coated Paper Company, Hamilton, Ohio. For mineral coated paper suitable for printing.

KARNAK No. 281,266. The Champion Coated Paper Company, Hamilton Ohio. For mineral coated paper suitable for printing.

PALADIN No. 281,268. The Champion Coated Paper Company, Hamilton Ohio. For mineral coated paper suitable for printing.

INLOX—No. 277,506. Robert Gaylord, Inc., St. Louis, Mo. For fiber board packing cases.

GAYLORD LINERS—No. 277,505. Robert Gaylord, Inc., St. Louis, Mo. For liners of paper material employed in making corrugated and solid fiber boxes.

CLENOS—No. 281,346. Federico de Palacio, New York City. For sanitary tissue paper handkerchief.

GLOFOIL—No. 282,667. Nashua Gummed & Coated Paper Company, Nashua, N. H. For metal coated paper.

OHMLITE—No. 282,798. Standard Products Corporation, New York City. For paper having a metallic coating.

MAUNA KEA—No. 282,976. Theo. H. Davies & Co., Ltd., San Francisco, Calif. For toilet paper.

ANACONDA BOND—No. 282,986. Groveton Paper Company, Inc., Groveton, N. H. For bond papers.

JULIET—No. 283,001. The Peerless Paper Mills, Inc., Oaks, Pa. For toilet paper.

CELLULITE—No. 283,065. Standard Products Corporation, New York City. For tissue paper.

WATERTONE—No. 279,487. The Martine Cantine Company, Saugerties. N. Y. For dull-finished paper suitable for use with water-color inks.

SOUTHERN TISSUE—No. 281,649. Joseph Block, Omaha, Neb. For toilet paper.

Fatal Accidents In Wisconsin Paper Mills

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., June 24, 1929.—Two fatal accidents occurred during the last week in Wisconsin mills. One of these was at the Riverside Fibre and Paper Company, of Appleton, Wis. Theodore J. Lenz was instantly killed, evidently as the result of a fall. His body was found part way in an elevator shaft and his skull was fractured. He had also been electrocuted. There were no witnesses of the accident.

The other accident was at the Hoskin-Morainville Paper Company, Marinette, Wis., where Paul Rehm, a 16-year-old youth, was also instantly killed. His skull was crushed when a beater roll bar let go through some cause which is not as yet known and struck him.

CLEANER STOCK— QUICKER—and CHEAPER

More and more mills are appreciating the quick screening advantages of the Inclined Screen. But *only* the Harmon Inclined Screen—made exclusively by Bagley & Sewall—includes this feature as a construction detail. Far different, in performance, maintenance and low power costs, than an up-ended flat screen. Piston shafts remain perpendicular, giving positive, straight-forward action. Special type cams, with individual vacuum chambers, give a sharp, slot-cleaning blast and a slower, stock-drawing suction. Non-clogging plates give increased capacity, permitting use of finer screens. Shower piping and pumping expense are eliminated. Actual experience proves that the Harmon Screen will pass more stock, cleaner and cheaper, than any other diaphragm screen built.

There's more we'd like to tell you. Write us.

The Bagley & Sewall Co.

Watertown, N.Y.

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Cloquet, Minn.—The Northwest Paper Company is said to have plans under advisement for an expansion and improvement program at its mill at Clouquet, to include the construction of new units and installation of additional equipment, reported to cost more than $1,500,000. A new paper-making machine will be installed for large increase in present capacity.

Oakland, Cal.—The Palmer-Chase Company, 6011 Adeline street, manufacturer of folding paper boxes and containers, contemplates a new plant unit at Richmond, and will select an architect to prepare plans and specifications at an early date. As now projected, plant will be one-story, 100 x 100 feet, reported to cost upward of $80,000 with equipment.

Everett, Wash.—Preparatory to the construction of the proposed new pulp mill of the Puget Sound Pulp and Timber Company, on site selected on the waterfront, the Department of Public Works is arranging for water supply for the plant. A special bond issue of $1,200,000 has been arranged for the work, which includes the installation of a system to provide 50,000,000 gallons daily, with source of supply on the Sultan River. It is proposed to begin work at an early date. Barr & Cunningham, Spalding Building, Portland, Ore., are consulting engineers for the water project. The pulp mill, for which plans are said to be in progress, is reported to cost upward of $3,500,000, with machinery. It will consist of several units.

Bloomsburg, Pa.—The Bloomsburg Paper Company, Bloomsburg, specializing in the production of kraft paper stocks, is planning the rebuilding of portion of mill destroyed by fire, June 17, with loss reported at close to $100,000, including building, equipment and stock. The main unit, which sustained heavy loss, was one and two story, L-shaped, 90 x 100 feet, and will likely be replaced in about same size.

St. Paul, Minn.—The Minnesota Mining and Manufacturing Company, Forest and Fauquier streets, manufacturer of abrasive papers, etc., will soon take bids for a new addition to its mill, to be two-story and basement, brick and reinforced-concrete, reported to cost about $150,000, with equipment. Toltz, King & Day, Inc., Builders' Exchange Building, St. Paul, is architect and engineer. E. B. Ober is president.

Chicago, Ill.—The Ground Paper Goods Company, Chicago, manufacturer of envelopes and kindred paper products, has leased four floors in the building at 900-910 West Lake street, totaling about 60,000 square feet of floor space, as well as an entire building on adjoining site, and will remodel and improve for a new plant. Equipment will be installed for large capacity. It is expected to begin operations at an early date.

Port Huron, Mich.—The Burwood Carved Products Company, Port Huron, Manufacturer of wood fiber composition specialties, has leased local property previously occupied by the Beebe Boat Works at Military and Connors streets, and will remodel and equip for expansion. It is planned to begin operations at an early date.

Danville, Ill.—The Cornstalk Products Company, Inc., Danville, has concluded negotiations for the purchase of the Euro-American Cellulose Products Corporation, and will consolidate with its organization. Through this acquisition, the purchasing company will secure patent rights for pulp-making processes and chemical by-products. Work is in progress on the installation of a chemical by-products plant at the Danville mill, designed to more than triple the present output of cornstalk pulp; production has been temporarily suspended for several weeks pending the completion of the new unit. Other expansion will also be carried out at the plant, and the company is said to have preliminary surveys under way for suitable sites for mills in other localities.

San Francisco, Cal.—The United Paper Box Company, representing a recent consolidation of the Mission Paper Box Company and Scott Brothers, Inc., both of San Francisco, is developing maximum output at its plants, and will continue on the present schedule for an indefinite period. The company has been carrying out an expansion program, including the installation of 12 new machines, providing for large advance in former capacity.

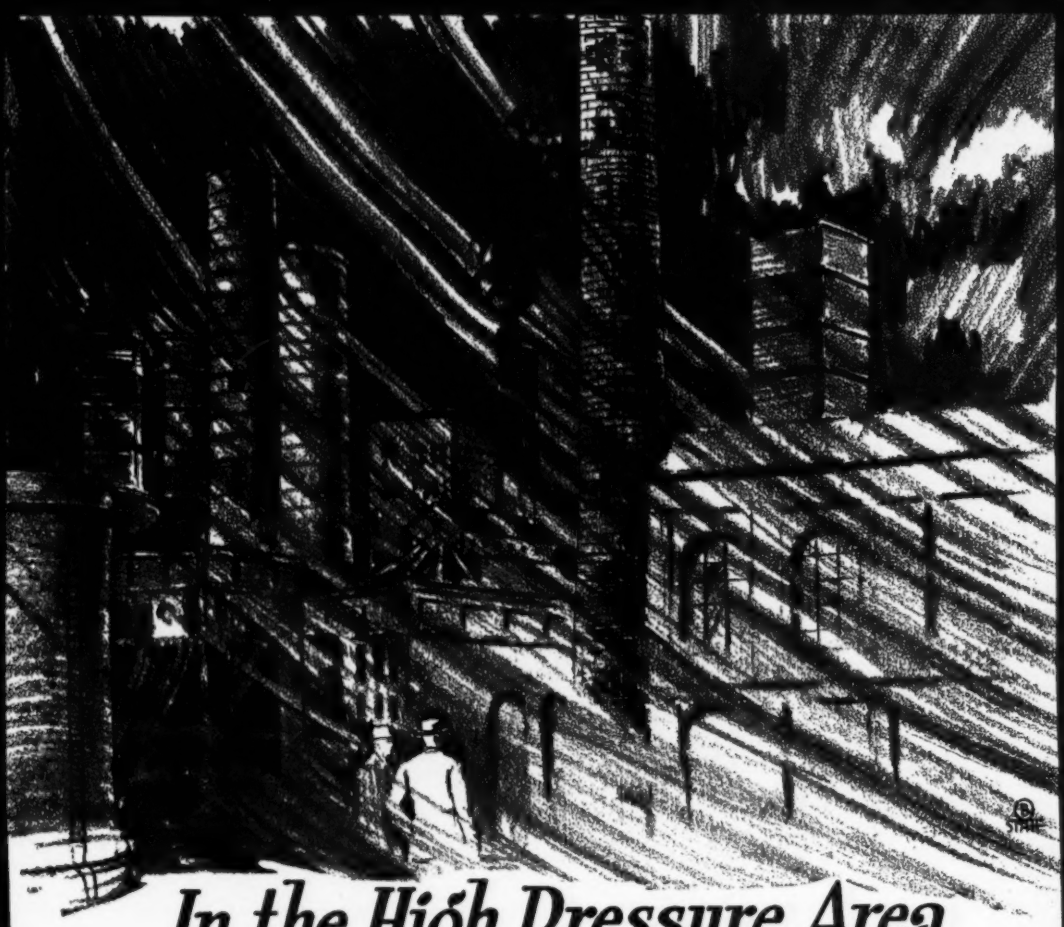
Pawtucket, R. I.—In connection with the recent acquisition of the Pawtucket mill of the Imperial Printing and Finishing Company, the Coated Textile Mills, Inc., Providence, R. I., is reported considering the use of a portion of the property for coated paper specialties, in addition to its regular line of artificial leather products, coated fabrics, etc. The plant consists of three main buildings and a number of smaller structures, with boiler plant, totaling about 50,000 square feet in all. Richard LeBaron Bowen is president and treasurer of the purchasing company.

Canton, Ohio—Old King Cole, Inc., 920 Market street, South, has approved plans for the construction of a new local mill for the production of paper mache specialties. It will be two-story, 100 x 180 feet, reported to cost upward of $65,000, with machinery. Superstructure will be placed under way at once. General building contract has been let to the Warren-Hoffman Company, Whiters Building, Canton.

Brooklyn, N. Y.—The Belmont Paper Box Company, Inc., recently organized by Philip Certilman, 411 Kingston avenue, Brooklyn, and associates, with capital of $10,000, is said to be planning the early operation of a local factory for the manufacture of paper boxes and containers.

Chicago, Ill.—Following recent acquisition of the Irving-Pitt Manufacturing Company, Locust street, Kansas City, Mo., manufacturer of loose-leaf paper products, by the Wilson-Jones Company, 3300 Franklin boulevard, Chicago, manufacturer of kindred products, the last noted company has arranged for an additional stock issue, developing a total of 136,400 shares of common stock, no par value, outstanding. The company maintains plants at Chicago and Kansas City, with a direct factory branch at New York. It is understood that a portion of the stock sale will be used for a general expansion program. Benjamin Kulp is president.

Salt Lake City, Utah—The Carpenter Paper Company is perfecting plans for the construction of a new building at West Temple and Pierpont streets, designed primarily for storage and distributing service. It will be of multi-story type, and is reported to



In the High Pressure Area

Machinery, human, industrial or mechanical is subject to the damaging effect of "high pressure" operating—the nature of this pressure and its causes are many, but the result is invariably the same.

The necessity of controlled steam pressure in the digester and dryer operations of the paper industry is unquestioned for quality, uniform production, and here it is that the Mason No. 131 Regulator is keeping faith with its manufacturers, its buyers and users by giving perfect control at all times regardless of initial pressure velocity or any other hampering condition. *Ask for our interesting bulletin.*

MASON

Mason Regulators

FOR CONSTANT, UNVARYING, TROUBLELESS PRESSURE REDUCING SERVICE IN THE PAPER MILL

MASON REGULATOR CO.
Boston, Mass.

1190 ADAMS ST.
(DORCHESTER CENTRE STATION)

cost is excess of $100,000, with equipment. It is proposed to proceed with superstructure at an early date.

Pittsburgh, Pa.—The Fashion Wall Paper Company, 409 Market street, is planning the rebuilding of portion of storage and distributing plant destroyed by fire, June 14, with loss reported at close to $30,000, including building, equipment and stock.

Buckingham, Que.—In connection with its proposed hydro-electric power development at High Falls, Que., referred to in these columns last week, the James MacLaren Company, Ltd., Buckingham has work under way on a new paper mill at Buckingham Junction, to be devoted to the production of news print. The plant will consist of several units and will be equipped for an initial output of about 250 tons of finished material daily. It is scheduled to be completed, ready for service, during 1930. The mill is expected to represent an investment in excess of $5,000,000. Alexander MacLaren is vice-president.

Fort William, Ont.—The Great Lakes Paper Company, Ltd., is pushing the completion of its new local news print mills, and it is expected that the entire project will be available for service in August, including a new concrete dock on the Kam River. The company has started up in a portion of the plant operating its new paper-making machine, which has a rated output of 310 tons of news print daily, said to be the largest machine of its kind in the world. It is proposed to develop maximum output within the next month, giving employment to more than 350 men. The entire plant will represent an investment of close to $10,000,000.

Vancouver, B. C.—The International Pulp & Paper Company, a subsidiary of the International Paper Company, New York, is said to be planning the construction of a new mill at Beaver Cove, B. C., to consist of a number of units with rated output of 500 tons of finished stock per day. A hydroelectric power development will be carried out in connection with the new mill for power supply. The company is also said to be planning the purchase of a large tract of timber land in this vicinity for pulp wood service. The entire project is reported to cost close to $15,000,000.

New Companies, Etc.

Chicago, Ill.—The General States Paper and Envelope Company, 900 West Van Buren street, has been incorporated with capital of $74,750, and 1,300 shares of stock, no par value, to manufacture and deal in paper products. The incorporators are Marvin H. Brook, Arthur E. Larson and H. G. Pohlman.

Saginaw, Mich.—The Barrett Paper Company has filed notice of decrease in capital from $100,000 to $75,000.

Providence, R. I.—The Narragansett Card and Paper Company, 357 Washington street, has filed notice of organization, to manufacture and deal in paper goods. Harry L. LeMay, 128 Sumter street, heads the company.

New York, N. Y.—The E. L. Miller Tag Company has been incorporated with nominal capital of $5,000, to manufacture and deal in paper and cardboard products of various kinds. The company is represented by F. W. Burr, 2 Lafayette street, New York.

Chicago, Ill.—The H. S. Nock Paper Company, 208 South LaSalle street, has filed notice of company dissolution under state laws.

New York, N. Y.—The Casey Paper and Supply Company has been incorporated with nominal capital of $5,000, to manufacture and deal in paper goods. N. Lieberman, 1560 Broadway, New York, attorney, represents the company.

Bloomsburg Paper Co. Damaged by Fire

BLOOMSBURG, Pa., June 24, 1929.—The main building at the plant of the Bloomsburg Paper Company, three miles from Bloomsburg, was destroyed by fire June 17, causing a loss estimated to be $75,000. The fire broke out at 8:15 o'clock in the morning while the plant was in operation and was believed to have been caused by spontaneous combustion.

Firemen prevented the fire from spreading to other buildings of the company but were unable to save the main plant.

News of the Boston Paper Trade

BOSTON, Mass., June 24, 1929.—Stone & Andrew, Inc., recently issued their 1929 catalogue, containing a complete list of stocks in their Boston and New Haven warehouses. Stone & Andrew have also mailed to the trade a folder, demonstrating Stonewall Ledger, which has elicited much favorable comment. Craftsmanship is emphasized in the manufacture of this paper, which has a smooth surface, a pliable, leatherlike texture, and a strong, durable character.

The June "How" of the Tileston and Hollingsworth Company, edited by A. V. Howland, has appeared in Crinoline Super Plate White, clothed with Crinoline Cover, Ivory. The house organ contains samples of Crinoline Cover—Coral, Ivory, Green, Cafe, Blue, and Gray. Features of the issue include pictures, with an accompanying article, showing just what happens to orders when they come into the office of the company, an analysis of the June calendar, and other stories, all characterized by their usual verve.

William Ross, treasurer of the Cook-Vivian Company, has gone on a fishing trip, with destination unannounced.

Arthur C. Hall, treasurer and manager of John Carter & Co., Inc., is passing his vacation at his cottage at Connecticut Lakes, N. H.

Charles W. Fields, of the Baird and Bartlett Company, box board dealers, accompanied by Mrs. Fields, has returned from a visit to his old home, Bristol, N. H., and to his wife's old home, Bath, N. H.

E. M. Davenport, treasurer of the Spaulding & Tewksbury Company, box board dealers, has been at Southeast Harbor, Me., preparing his summer residence for the season. L. B. Tewksbury, second vice president of Spaulding & Tewksbury, has been confined to the house by illness.

Lieutenant Colonel Edgar Smalley, managing director of the Edwin Butterworth Company, Ltd., Manchester, England, and director and stockholder of E. Butterworth & Co., Inc., has returned to Manchester, after a visit of several weeks in this country.

The Quarter Master Depot Army Base, South Boston, is to sell by sealed bids, to be opened June 28, the accumulation of waste paper from July 1 to September 30.

New Large Plant For Stuebing Cowan Co.

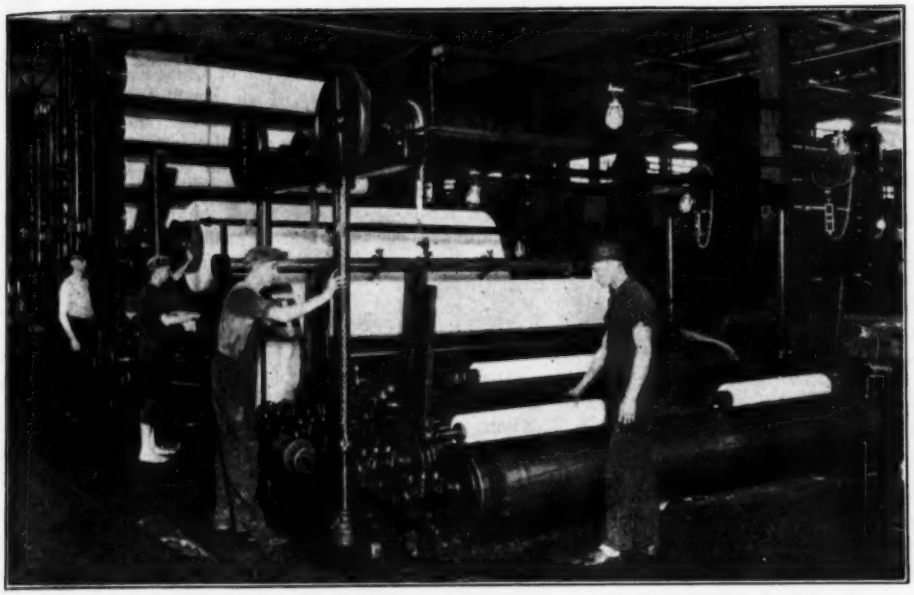
The Stuebing Cowan Company, Cincinnati, Ohio, and Holyoke, Mass., is now erecting, at Cincinnati, Ohio, what is claimed to be the most modern plant, for the manufacture of lift trucks and platforms. On a four acre tract it will construct its first unit of a one floor fireproof construction, 160 feet wide by 300 feet long, with a two story office building of wire cut brick and stone trim, at an approximate cost of $200,000.00. The location will provide for two and-one half times present production. The most modern equipment will be installed, at additional cost.

The company's plans include a model of efficient inside transportation where all process material will be handled by the Lift Truck System. The standard sizes of skid platforms, as recommended by the Division of Simplified Practice, of the Department of Commerce, will be followed throughout, and suppliers of material to the Stuebing Cowan Company will ship their goods to the company on such platforms.

This modern plant is located on a switch serviced by the four largest railroads entering the city, and with the exception of long raw material such as steel and lumber, cars will be loaded and unloaded with the Lift Truck System.

The company manufactures electric lift trucks, tractors, and a complete line of hand lift trucks and platforms. It recently expanded its plant at Holyoke, Mass. Two plants are maintained in Canada, one at Granby, Quebec, one at Toronto, Ontario, and a plant at Moosburg, Bavaria.

The demand for lift trucks and platforms by Railroads, Steamship Companies, and shippers of goods on skid platforms has compelled this rapid growth.



"M & W" Four Drum Winder for Book Paper 18" dia. drums 150" face. Photograph taken in mill of Champion Coated Paper Co., Hamilton, O. (This is one of their 14 "M & W" Winders.

25th Anniversary of the "M & W" Four Drum Winder and Slitter

Today it is still the most practical and economical Winder, and is universally used by leading paper makers.

During the past few years improvements, which are fully covered by Patents, have been made to meet conditions of the modern high speed and up-to-date mills.

OVER 1000 IN OPERATION ON ALL GRADES OF PAPER AND BOARD.

Each roll is wound on an independent shaft. If a break occurs, paper on other rolls is not affected; this means less number of rolls to be pieced.

Plugged rolls are wound on Collapsible Shafts.

Paper is wound on shells or cores of any description. This is a great advantage over the Two Drum Winder Type, as the shells or cores do not have to be the same length as rolls of paper.

NO INTERWEAVING OF ROLLS.

Rolls wound any width and of variable diameters.

Shipping rolls made on paper machines with this winder from an uneven sheet of paper, made hard and without wrinkles.

THE MOORE & WHITE CO., NORTH PHILA. STATION PHILADELPHIA, PA.

PAPER · MACHINE · BUILDERS

New York Trade Jottings

The Belmont Paper Box Company, of Brooklyn, N. Y., has been incorporated under the laws of the State of New York, with a capital stock of $10,000.

* * *

The Japan Paper Company has just issued an artistic colored folder, printed on Lombardia, an Italian hand made paper, describing their unique stock of Oriental and European papers.

* * *

The MacAndrews & Forbes Company, paper box manufacturers, of 200 Fifth avenue, New York, have declared the regular quarterly dividends of 65 cents on the common, and $1.50 on the preferred stock, both payable July 15 to stock of record June 29.

* * *

Lewis Jennings, formerly manager of the New York branch of Edwin Butterworth & Co., has formed a corporation under his own name, Lewis Jennings, Inc., with offices at 220 Fifth avenue, New York. He plans to import and deal in all grades of foreign and domestic new and old rags, and a general line of paper mill supplies.

* * *

The United States Customs Court, in overruling a protest of F. W. Myers & Co., Inc., of Ogdensburg, N. Y., finds that so-called "wrapper heads" composed of unlaminated pulpboard, cut into octagonal shape and used exclusively for wrapping rolls of news print paper in order to protect the ends of the rolls from damage in handling, were correctly assessed with duty at the rate of 30 per cent ad valorem, under Paragraph 1313, Act of 1922.

* * *

The Interstate Commerce Commission has suspended from June 21 until January 21, 1930, schedules proposing to increase rates on news print paper and other paper articles from points in Canada to numerous destinations in the United States. The proposed schedules would have increased the present rate from Three Rivers, Quebec, to New York City from 34 cents to 40½ cents per 100 pounds.

* * *

W. E. Horn, manager of the Peerless Paper Specialty, Inc., gummed tape manufacturers, of Philadelphia, Pa., and D. A. Crocker, secretary of the Gummed Industries Association, 18 East 41st street, New York, attended the meeting of Committee D-10 of the American Society for Testing Materials at the Chalfonte-Haddon-Hall Hotel, Atlantic City, N. J. yesterday, Wednesday. The principal business before the meeting was a report from the United States Forest Products Laboratory on the investigation it is making of transportation hazards as related to the design of shipping containers. Form sheets for use in recording data on the nature, cause and extent of damage to containers and their contents were presented, together with report on one completed small scale survey of one class of commodity shipped in both wood and fiber containers. J. A. Newlin, of the United States Forest Products Laboratory, is chairman of Committee D-10 and C. A. Plaskett, also of the United States Forest Products Laboratory, is secretary of the committee.

R. S. Kellogg Returns From Long Tour

R. S. Kellogg, secretary of the News Print Service Bureau, 342 Madison avenue, New York, returned to headquarters last Monday, June 24, after a six weeks automobile trip, during which he covered approximately 5,400 miles and visited news print and other paper and pulp mills in Wisconsin, Minnesota, North Michigan, Ontario and Quebec. He was accompanied by Mrs. Kellogg.

Mr. Kellogg also attended the Annual Meeting of the International Advertising Association in Chicago; the Annual Meeting of the American Pulp and Paper Mill Superintendents Association, at Wausau, Wis., and the Summer Meeting of the Technical Section of the Canadian Pulp and Paper Association, at Three Rivers, Quebec.

News of the New England Trade

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 24, 1929.—The annual summer outing of the employees of the Rutter & McNaught Company was held at Fieldston on the Atlantic, Marshfield, Mass., Saturday, June 22. Leaving Boston in automobiles, the party followed the shore road to the destination, where an afternoon of sports was planned. The events included rifle practice, pool, bowling, and swimming. After these diversions the men and their families enjoyed a delicious shore dinner and dancing until a late hour.

Charles A. Young, vice president of the Globe Paper Company, and Mrs. Young entertained the ladies at the office of that company at their residence, Melrose, Mass., Saturday afternoon, June 22. The program included luncheon, seeing Mr. Young's beautiful flower garden and an automobile drive to the points of interest of the city.

Bird & Son, Inc., East Walpole, Mass., have added another division to their plant in which they are to make rubberized flooring, in whose manufacture paper pulp is used. The flooring has a chemical surface. The product will be ready for the market in the fall.

The Forest Paper Company, Yarmouth, Me., is installing equipment from the Harris-Seybold-Potter Company, Cleveland, Ohio, for the manufacture of products including cartons and corrugated board.

The Package Paper Company, located on Birnie avenue, Springfield, Mass., for the last 20 years, has purchased the old thread mill at Holyoke, Mass., and expects to occupy the plant by July 1.

Frank Wood, manager of the Boston division of the American Bank Note Company, has been promoted to the position of assistant to the general manager, Mr. Acheson, of the New York office, where he has begun his new duties. A. W. Spencer has succeeded Mr. Wood as manager of the Boston division.

No Freight Reduction for Watertown

[FROM OUR REGULAR CORRESPONDENT]

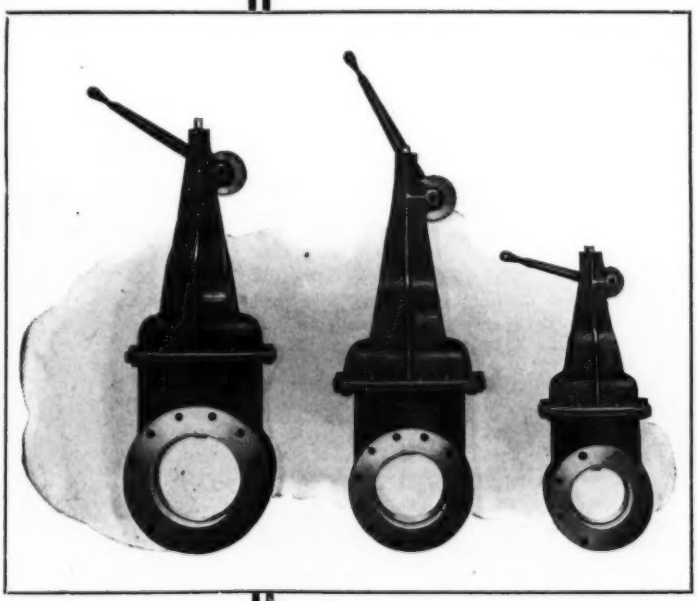
WATERTOWN, N. Y., June 24, 1929—Paper manufacturing concerns in this city are not entitled to freight rate reductions in shipments of wrapping and printing paper, as has been recommended by an examiner of the Interstate Commerce Commission, according to a brief filed last week with the commission by Central Freight Association Lines. Other cities mentioned in the brief as not deserving of reductions include York, Pa., Battle Creek, Mich., and Grand Rapids, Mich. These four cities are singled out for attack as they are key cities in the examiner's proposed rate reductions. The railroads point out that under the examiner's proposals the rate from New York to Grand Rapids and Battle Creek would be one-half cent while "greater reductions to substantially the same destinations and others in Illinois and Missouri would follow the proposed readjustment from York, Pa., ranging from one-half cent at Battle Creek to 5.5 cents at St. Louis. The same would be true of Philadelphia," continues the brief "and to a lesser degree from Covington, Va., and Watertown although a greater number of reductions would follow the proposed readjustment from Watertown."

Wisconsin's Rest Law Working Satisfactorily

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., June 24, 1929.—Wisconsin's new rest law is working out with satisfaction since it was modified to meet conditions in the paper mills. It requires that employees be given one day of rest in each seven and brought up a real problem where work was necessary on Sundays. The law has been changed so it does not apply to superintendents, and department heads, whose work is supervisory, but permits millwrights, electricians, pipe fitters and others to work not more than three hours on essential work on Sunday. Reports reaching the Wisconsin Industrial Commission from the mills indicate that the new plan is successful from the standpoint of the mills as well as the workers. No new difficulties have arisen concerning work that must be done on Sundays in the way of repairs and maintenance.

OPENED
or
CLOSED
with one, quick motion



IF all the extra, unnecessary minutes in opening and closing stock line valves throughout the entire paper industry were added together—what an astounding number of hours in a year's time the total would be!

How much of such a total would *your* mill contribute?

NOTHING—if all your lines were equipped with Valley Quick-Opening Gate Valves—because with one, quick, easy stroke of the lever these valves can be opened *wide* or closed *tight*.

There is no chance for clogging. And, like all Valley equipment, they are precision machined.

In any mill—large or small—these valves will prove a better investment than good bonds at 6%.

May we send you complete information?

VALLEY IRON WORKS CO.

Machinery for Paper and Pulp Mills

APPLETON WISCONSIN

PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

For the Month Ending April 30, and for the Four Months Ending April 30, 1929 as Compared with Corresponding Months of Previous Year

IMPORTS—PAPER

		April				Four Months Ending April 30			
		1928		1929		1928		1929	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
PAPER AND MANUFACTURES (TOTAL)		.....	$12,118,411	.....	$12,128,812	.....	$50,600,871	.....	$49,915,361
Printing paper—									
Standard newsprint	lbs...free	326,357,207	10,725,442	356,151,699	10,657,001	1,372,955,641	44,915,086	1,446,564,359	44,107,538
Imported from—									
Finland	lbs.	6,537,451	177,673	2,414,928	55,996	24,508,530	665,412	14,909,067	368,613
Germany	lbs.	1,126,986	29,411	1,265,770	31,660	5,256,803	141,640	5,031,362	128,431
Norway	lbs.	516,904	12,012	1,294,023	30,547	5,710,085	146,103	4,463,897	111,368
Sweden	lbs.	2,532,697	67,126	5,626,450	145,086	35,228,246	950,994	31,852,015	819,686
Canada	lbs.	315,580,366	10,437,292	345,550,528	10,393,712	1,274,749,916	42,122,211	1,350,424,768	41,567,883
Newfoundland and Labrador	lbs.	.....	.....	.....	.....	26,862,548	870,197	39,883,250	1,111,557
Other countries	lbs.	62,803	1,928	.....	.....	639,513	18,529	.....	.....
All other n.e.s.	lbs...dut.	749,637	33,295	258,549	11,762	2,907,439	131,539	1,310,485	63,860
Grease-proof and water-proof papers	lbs...dut.	158,699	28,536	88,498	21,616	375,465	75,040	458,147	91,597
Kraft wrapping paper	lbs...dut.	298,143	12,364	1,209,588	51,522	2,003,627	84,383	3,074,707	132,234
Other wrapping paper	lbs...dut.	1,071,451	22,234	978,724	24,198	6,010,226	125,660	2,290,526	68,813
Writing, letter, drawing, etc., papers	lbs...dut.	301,081	75,228	240,996	65,267	850,790	213,832	992,684	253,835
Surface-coated paper	lbs...dut.	211,484	100,401	238,019	105,635	759,789	355,437	833,858	366,221
Tissue, copying, etc., papers	lbs...dut.	232,937	163,858	443,349	235,143	1,062,996	681,571	1,393,617	737,750
Paper boards, n. e. s.—									
Pulp boards in rolls	lbs...dut.	4,993,621	110,805	4,892,087	103,833	19,012,270	424,447	20,456,992	458,204
Paper boards, pulp board, and card-board	lbs...dut.	2,167,561	49,839	1,867,580	44,122	8,929,870	195,977	6,990,417	166,062
Leather board, test, and wall board	lbs...dut.	240,787	5,312	103,080	3,643	464,153	12,292	561,760	21,553
Cigarette paper, cigarette books, and covers	lbs...dut.	952,588	260,440	962,731	306,772	4,212,862	1,156,659	3,950,527	1,312,857
Hanging paper (wall paper)	lbs...dut.	161,648	54,843	158,740	52,197	995,381	264,372	1,020,368	285,831
Duplex decalcomania paper, not printed	lbs...free	45,628	10,695	49,886	11,996	183,321	43,032	231,838	54,741
Paper boxes	dut.	.....	130,481	.....	125,517	.....	568,421	.....	482,727
Pulp or papier-maché and manufactures, n. e. s.	dut.	.....	22,387	.....	27,592	.....	175,867	.....	221,279
All other paper and manufactures	dut.	.....	312,251	.....	280,996	.....	1,177,256	.....	1,090,259

WOOD PULP

Mechanically ground wood pulp	tons..free	14,947	376,761	20,816	521,883	71,629	1,768,243	71,298	1,848,261
Sulphite wood pulp	tons..free	53,054	3,116,782	76,962	4,548,364	295,297	17,305,072	318,263	18,598,385
Unbleached	tons..free	31,480	1,507,741	48,898	2,351,202	199,776	10,080,614	211,922	10,557,813
Bleached	tons..free	21,574	1,609,041	28,064	2,197,162	95,521	7,224,458	106,341	8,040,573
Imported from—									
Finland	tons	7,988	319,617	15,890	731,715	32,389	1,320,695	37,925	1,750,593
Germany	tons	4,760	297,973	3,575	250,784	17,581	1,166,695	18,631	1,269,644
Norway	tons	5,631	356,687	6,064	439,321	23,790	1,590,713	18,950	1,282,570
Sweden	tons	1,378	72,498	21,421	1,195,499	91,000	4,932,602	120,494	6,679,278
Canada	tons	31,502	1,960,169	29,535	1,898,256	117,082	7,532,327	115,420	7,241,579
Other countries	tons	1,795	109,838	477	32,789	13,455	762,040	6,843	374,721
Sulphate wood pulp, unbleached, (kraft pulp)	tons..free	20,317	1,138,794	30,884	1,711,882	103,930	5,827,591	101,652	5,665,192
Imported from—									
Finland	tons	4,919	198,508	2,254	92,621	11,162	474,161	8,184	387,789
Norway	tons	1,586	81,147	1,263	76,537	5,058	258,845	4,242	245,502
Sweden	tons	2,750	149,542	18,065	958,086	41,084	2,133,351	49,637	2,588,806
Canada	tons	10,779	696,570	8,773	560,620	45,689	2,917,669	37,059	2,326,148
Other countries	tons	283	13,027	529	24,018	937	43,565	2,530	116,947
Sulphate wood pulp, bleached	tons..free	201	12,623	2,161	145,013	3,931	233,707	5,183	374,316
Other pulp	tons..free	214	16,200	490	37,039	1,715	124,919	1,971	144,759

CRUDE PAPER STOCK

Rags for paper stock	lbs...free	33,736,452	614,731	33,860,047	660,828	133,975,549	2,511,592	127,022,149	2,470,085
Waste bagging, waste paper, etc.	lbs...free	14,858,729	283,086	11,589,590	155,558	45,680,966	678,197	44,963,013	554,822
Old rope and all other paper stock	lbs...free	3,941,478	124,319	10,594,233	307,085	17,617,985	510,928	27,375,262	915,426

CHEMICALS AND OTHER PAPER MAKERS' MATERIALS

Colors, dyes, stains, color acids, and color bases, n. e. s.	lbs...dut.	553,592	592,200	833,895	997,665	2,179,660	2,355,902	2,865,272	3,320,843
Imported from—									
Belgium	lbs.	15,018	18,741	9,428	10,860	47,157	52,598	17,899	20,485
France	lbs.	4,032	5,661	29,405	45,278	29,901	40,480	57,930	82,344
Germany	lbs.	358,078	355,806	686,511	802,011	1,385,431	1,375,241	2,110,196	2,396,114
Italy	lbs.	15,081	12,806	.....	.....	37,661	33,264	1,980	2,104
Switzerland	lbs.	149,886	184,640	97,065	125,403	558,736	710,337	628,356	768,258
United Kingdom	lbs.	5,419	6,111	9,168	11,193	41,358	40,821	26,770	29,547
Other countries	lbs.	6,078	8,435	2,358	2,920	79,416	103,161	22,141	21,991
Casein or lactarene	lbs...dut.	2,579,385	327,785	3,323,520	410,673	11,174,411	1,516,742	12,644,195	1,493,029
Kaolin, china, and paper clay	tons...dut.	25,516	280,892	15,398	177,426	85,348	876,499	70,859	781,896

(Continued on page 46)

EVEN DRYING

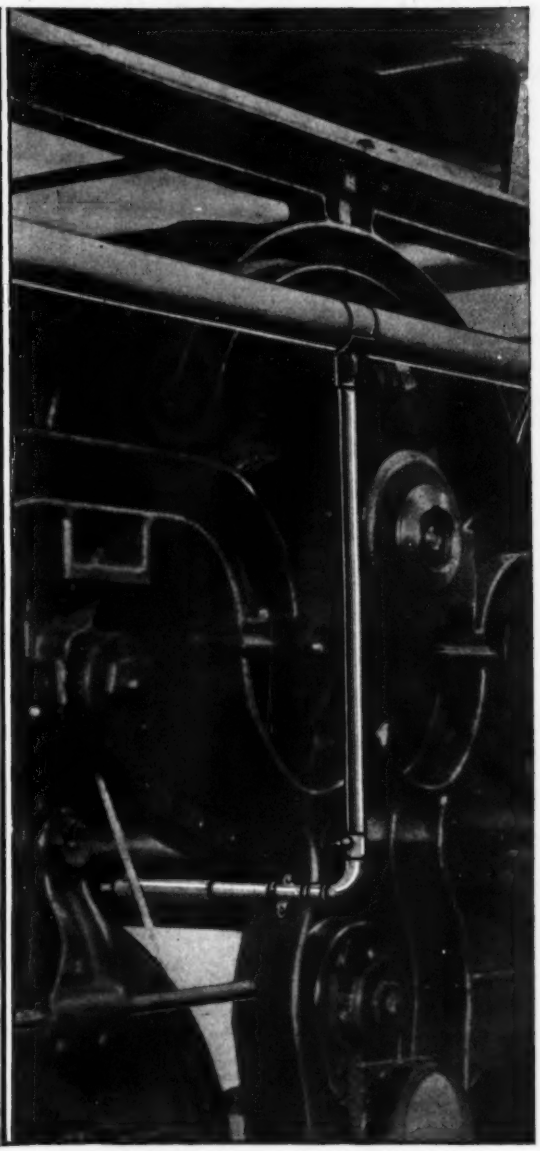
is one of the most important advantages from operation of the remarkably efficient

Ross-Grewin High Pressure System

Even drying is the natural result of sweeping the sheet by strong currents of warm air from opposite directions. Small nozzles blowing thin jets of air at high velocity from both sides of machine reach and remove the vapor that otherwise settles along the center of the sheet leaving the troublesome wet peaks.

The small quantity of high velocity air requires ducts and nozzles of only moderate size and these are easily arranged to prevent interference with threading and removal of broke.

For machines using top and bottom felts, where natural ventilation fails, the Ross-Grewin System proves exceptionally effective.



J. O. ROSS ENGINEERING CORPORATION

208 W. Washington Street, CHICAGO — Main Office—122 East 42nd Street, NEW YORK — 519 American Bank Bldg., PORTLAND, ORE.

ROSS ENGINEERING OF CANADA, LIMITED
NEW BIRKS BLDG., MONTREAL

ROSS SYSTEMS
HEATING—VENTILATING—DRYING

PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

(*Continued from page 44*)

EXPORTS—PAPER

	April 1928 Quantity	April 1928 Value	April 1929 Quantity	April 1929 Value	Four Months Ending April 30 1928 Quantity	Four Months Ending April 30 1928 Value	Four Months Ending April 30 1929 Quantity	Four Months Ending April 30 1929 Value
Paper and Manufactures (total)	.....	$2,396,665	.....	$2,958,053	.....	$9,948,721	.....	$13,139,080
Printing paper—								
Newsprint paper ....lbs.	1,236,073	44,132	1,796,659	65,622	6,980,981	270,209	11,896,676	435,248
Exported to—								
Canada ....lbs.	.....	.....	18,547	1,131	70,887	3,289	166,971	8,864
Central America ....lbs.	22,544	894	35 209	1,363	301,990	10,951	360,778	13,038
Cuba ....lbs.	288,784	9,200	224,087	7,947	1,476,167	55,755	1,044,968	37,832
South America ....lbs.	326,718	11,630	179,218	6,400	1,388,736	52,459	3,602.914	131,250
China, Hong Kong, and Kwantung...lbs.	52,059	1,973	633,118	21,840	175,373	6,935	2,421,050	81,434
Philippine Islands ....lbs.	387,670	15,140	608,761	22,344	3,164,793	125,777	3,670,828	132,008
Other countries ....lbs.	158,298	5,295	97,719	4,597	403,035	15,043	629,167	30,822
Book paper, not coated ....lbs.	1,494,389	129,626	3,331,605	232,167	6,650,297	533,768	13,411,336	949,798
Exported to—								
Europe ....lbs.	46,518	4,132	105,340	8,342	163,200	15,171	846,234	70,745
Canada ....lbs.	376,925	23,990	1,101,642	76,040	1,817,579	122,379	4,187,992	256,543
Mexico ....lbs.	37,306	3,739	26,362	3,396	188,261	23,800	173,741	19,206
Cuba ....lbs.	293,140	23,691	554,127	37,289	1,494,273	114,201	1,611,919	112,281
Argentina ....lbs.	69,905	7,309	286,083	18,865	188,559	19,424	1,084,591	88,361
Other South America....lbs.	117,016	8,876	109,645	8,619	427,049	34,844	471,203	40,822
China, Hong Kong, and Kwantung...lbs.	59,252	12,925	573,298	34,396	870,314	71,041	2,422,263	145,899
Philippine Islands ....lbs.	272,446	18,977	451,045	32,452	590,132	43,497	1,617,978	107,307
Australia ....lbs.	84,446	14,201	27,606	3,313	278,025	35,810	454,504	63,011
Other countries ....lbs.	137,435	11,786	96,457	9,455	632,905	53,601	540,911	45,623
Cover paper ....lbs.	171,653	31,497	166,130	28,885	673,998	115,550	676,698	119,422
Grease-proof and waterproof paper....lbs.	241,762	49,659	156,439	31,239	985,855	151,564	989,477	168,212
Overissue newspapers ....lbs.	.....	.....	9,037,548	109,145	.....	.....	44,250,353	509,724
Wrapping paper ....lbs.	2,531,956	175,630	2,713,984	218,405	12,370,127	915,166	14,365,440	1,007,827
Surface-coated paper ....lbs.	651,247	70,189	1,422,930	123,662	2,421,540	285,844	7,311,487	651,106
Tissue and crepe paper....lbs.	499,314	88,781	325,223	74,106	1,912,697	381,959	1,486,383	322,262
Toilet paper ....lbs.	518,113	57,876	810,842	91,427	1,809,431	201,098	2,669,290	303,798
Paper towels and napkins....lbs.	126,764	21,809	346,792	37,105	893,842	116,240	1,201,539	136,402
Box board ....lbs.	6,577,124	176,901	3,818,708	103,982	17,094,496	501,421	17,439,773	465,100
Bristols and bristol board....lbs.	172,939	19,945	221,559	26,148	648,435	64,592	1,037,521	105,146
Other paper board and straw board....lbs.	2,803,795	150,306	2,841,803	140,013	12,506,890	628,081	13,960,099	654,076
Sheathing and building paper....lbs.	1,128,631	43,496	2,544,474	82,931	4,112,941	156,337	8.317,640	289,536
Fiber insulating lath or board....sq. ft.	.....	.....	1,061,398	37,396	.....	.....	6,846,321	230,498
Wall board of paper or pulp....sq. ft.	5,120,801	158,163	5,852,268	189,705	15,666,057	509,482	22,229,849	731,332
Blotting paper ....lbs.	307,562	36,993	342,060	38,340	1,358,276	162,321	1,307,555	150,625
Filing folders, index cards, and other office forms ....lbs.	146,512	49.144	122.417	46.451	505,702	178.581	567,936	203,713
Papeteries (fancy writing paper)....lbs.	56,497	16,141	57.698	15,914	255,807	53,217	223,112	54,417
Other writing paper....lbs.	1,912,253	259,064	2,602,063	259,582	7,470,532	924,842	10,807.654	1,136,487
Paper hangings (wall paper)....yds.	3,355,794	56,660	2,073,833	64,220	17,640,444	325,185	15,992,236	332,934
Paper bags ....lbs.	553,115	49,369	775,803	73.368	2,727,247	249,644	3,747,947	338,636
Boxes and cartons....lbs.	2,152,959	130.953	2,319,915	164.483	8,287,637	566,582	10,392,574	652,941
Envelopes ....lbs.	186,306	33,796	193,705	34.593	803,977	136,134	782,484	135,467
Vulcanized fiber sheets, strips, rods, and tubes..lbs.	492,083	131,694	503,472	139,181	1,608,141	449,355	2,318,380	588,896
Manufactures of vulcanized and indurated fiber..lbs.	61,205	22,864	30,815	11.363	186.066	61,671	106,462	37,538
Cash-register and adding-machine paper....lbs.	200,614	24,362	379,207	35.587	716,199	80,442	1,543,560	150,357
Other paper and paper products....lbs.	.....	367,615	.....	483,033	.....	1,929,436	.....	2,277,582

WOOD PULP AND PAPER STOCK

Sulphite wood pulp ....tons	2,206	119,995	3,107	164,282	6,364	372,237	15,012	817,102
Soda wood pulp ....tons	315	20,755	26	1,996	753	56,972	494	40,118
Other wood pulp....tons	108	13,856	825	43,553	836	47,346	2,373	156,407
Rags and other paper stock....lbs.	22,363,314	559,139	10,743,012	175,391	76,585,710	1,497,506	44,213,690	871,063

PAPER AND PULP MILL MACHINERY

Paper and pulp mill machinery....lbs.	.....	300,718	.....	275,210	.....	1,251,644	.....	949,082

C. E. Duncan Leaves Filer Fibre Co.

Chas. E. Duncan, better known by his friends, as "Dunc," has resigned his position as manager of sales of the Fiber Company, effective June 1. Mr. Duncan has been associated with this company from its beginning six years ago, also in similar capacity with the Dexter Sulphite Pulp and Paper Company of Dexter, N. Y., and Howland Bag and Paper Company Dexter, N. Y.

His resignation was finally accepted by the Filer Fibre Company with much reluctance. This act on Mr. Duncan's part was made necessary by reason of the revamping of the Dexter Sulphite Pulp and Paper plant together with a large expenditure for bleaching equipment which will demand his individual efforts.

Mr. Duncan was associated with the Dexter Sulphite Pulp and Paper Company and Howland Bag and Paper Company for a number of years prior to his taking on the Filer Fibre Company account. His technical knowledge of papers, together with his persuasive powers in salesmanship, naturally insure results in his present connection.

News of the Indianapolis Trade

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., June 25, 1929.—The annual Printers and Merchants Golf Tournament, in which paper merchants and employing printers of Indianapolis compete for honors each year, is to be held June 28 at the Avalon Country Club . Fred Ostermeyer of the Indiana Paper Company is in charge and states that from the number of entries in advance, there should be a record crowd. Usually about 75 persons compete and it is one of the gala events of the summer season for the trade.

Henry Burgee of the Parsons Paper Company was a visitor in Indianapolis during the week.

George Hargitt, sales manager of the C. P. Lesh Paper Company of Indianapolis, is spending his vacation fishing at Lake James, Ind.

R. P. Alexander, an official of the C. P. Lesh Paper Company, will leave in August for Europe. He will spend about two months abroad.

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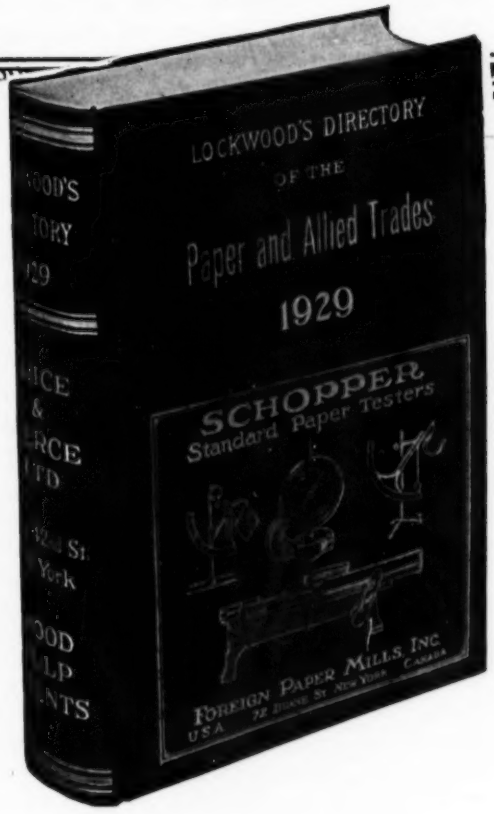
1929 *Edition*



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FOREIGN PAPER TRADE

Exports of paper and paper products from the United States during April dropped to $2,958,053, a decrease of $483,939, or 14 per cent, compared with the preceding month. This is not an unusual development at this season of the year, however, and in comparison with the corresponding month last year, April's shipments show an increase of $561,388, or 23 per cent.

Nearly all classes shared in these advances, with the most outstanding gains registered in book, surface-coated, and sheathing papers, which increased by approximately 125 per cent. Book paper and sheathing papers also enjoyed the distinction of being among the few items to register an increase over March shipments.

Exports of news print, which rank among the leading items on this schedule, were 45 per cent above those of April, 1928, but show approximately the same decrease when the comparison is made with the March shipments. Other export items in which advances were recorded were: writing paper and wall boards, 35 per cent; paper bags, 40 per cent; wrapping paper 7 per cent; and boxes and cartons 8 per cent.

Exports of paper base stocks, which comprise largely sulphite wood pulp and rags and other waste stock, were valued at $413,594 as compared with $633,606 during March and $745,521 during the corresponding month last year. The decline shown in the April shipments in comparison with the latter figure was undoubtedly due to some extent to the fact that over-issue newspapers are now shown as a separate item instead of being included with rags and other waste as was the case last year. April shipments of these papers exceeded 9,000,000 pounds and were valued at $109,145.

Imports of paper and paper manufactures into the United States during April, which were valued at $12,128,812, also dropped slightly under the amount recorded for the preceding month, but compared with April of 1928, receipts for most part registered an increase. Owing to the greater reduction in the price of imported news print compared with a year ago, however, April imports show practically no advance in value, notwithstanding that imports of this paper, which represent the bulk of the incoming paper consignments, rose from 145,695 tons to 154,532 tons.

Imports of other classes of paper and board during April were valued at $1,471,809, an increase of 6 per cent over the corresponding month last year, but a decrease of 5 per cent compared with March receipts. News print importations during April were valued at $10,657,001, while March receipts totaled $11,105,480, and those for April, 1928, $10,725,442.

Imports of paper base stocks, on the other hand, show an advance from 30 per cent to 35 per cent in value compared with either of the months mentioned. Pulpwood receipts, valued at $692,512 during April, declined considerably, but imports of bleached sulphite increased by 35 per cent, mechanical groundwood and unbleached sulphite by 40 per cent, and unbleached sulphate (kraft pulp) by 55 per cent. Imports of rags for paper base stocks likewise increased, by 25 per cent, and waste paper, rope, etc., by 35 per cent. Imports of all of these classes, with the exception of rags, were also considerably above those received during April, 1928.

Total imports in this line were valued at $8,780,164 as compared with $6,790,257 during March, and $6,528,458 during the corresponding month last year.

REFORESTATION IN NEW YORK

The spring of 1929 has broken all records in the number of trees planted for reforestation purposes in Northern New York and principal paper manufacturing firms are participating in the work. From a recent report it is estimated that the St. Regis Paper Company planted 2,500,000; Northern New York Utilities, controlled by the Carlisle interests, 4,500,000; Malone Light and Power Company, 1,000,000; and St. Lawrence University, 68,000. The villages of Carthage and Lowville have planted several thousand trees this spring and have plantations of nearly a thousand acres each while the Loomis Talc Company of Gouverneur has also planted many thousands.

St. Lawrence University is starting on a real forestry program and has engaged Floyd Callward as forester. He is a graduate of the New York State College of Forestry and has spent several years in forest extension work in the state of Vermont which makes him well qualified for the work. The forestry course will be started at the university this fall. A nursery will be made and experiments carried on which will be a benefit to the entire North Country. Mr. Callward has announced that he would be very glad to have anyone bring their forestry problems to him.

The city of Watertown has planted 10,000 trees and plans have already been made to increase this number next year. The board of supervisors of Jefferson County acquired about 26 acres and planted 22,000 trees on the huge tract. This is just a start on a policy which they have adopted to take advantage of the Hewitt forestry bills which enable the county to appropriate up to $5,000 per year, receiving the same amount from the state to carry on reforestation work. More land is to be acquired and several thousand trees will be planted next spring. Other counties have already availed themselves of this opportunity.

More than 4,000,000 trees, mostly spruce, will be placed this season by the Northern New York Utilities Corporation and J. Elmer Kieb, forester for the company, expects to have the work completed within a few weeks. Over 1,000,000 trees have been planted on the site for the proposed Titusville Reservoir on the Salmon River near Malone. About 1,200,000 trees have been planted at Clifton on the De Grasse River. On the Oswegatchie, at Jerden Falls, 200,000 trees have been placed and at Deferiet

about 20,000. In the vicinity of Santa Clara on the St. Regis River in Franklin County about 2,000,000 trees are now being placed following out the company's extensive line of reforestation.

Paper manufacturers are of the opinion that the forest problem in many ways is the most vital internal problem before the American people and that the future of a country without trees is almost hopeless. Statistics show that this country every year uses approximately 40,000,000,000 feet of lumber; 125,000,000 railroad ties; 6,000,000 cords of pulpwood or 8,000,000 tons and 110,000,000 cords of fuel wood besides other by-products such as turpentine, rosin, alcohol, pitch, charcoal and maple sugar. It is also estimated that this country is the heaviest user of pulpwood in the world. The paper prices have doubled in the past ten years due to the neglect of forestry. Furthermore, any of the above products cannot be materially reduced without serious injury to industry, manufacture and without lowering the standard of living.

Progress in Trade Association Movement

The growth of the cooperative movement in American business is strikingly evident by a comparison of the latest compilation of this country's commercial and industrial organizations just issued by the Department of Commerce with some of the earlier editions. The present compilation contains the names of more than 13,000 organizations, including 2,000 national associations, about the same number of State bodies, and more than 9,100 local organizations. When the first manual of this kind was issued back in 1912 the total number of listings was only 3,200 of which 350 were organizations national in scope; in 1919 the national organizations had increased to 754 while in 1923 they numbered about 1,500. The total number of organizations listed in 1926, the edition preceding the present compilations, was approximately 9,000, or about 55 per cent of the number shown in this year's edition.

The headquarters of the largest number of these national associations is maintained in New York, Chicago, and Washington. A considerable number of them, however, are located in such trade centers as Detroit, Los Angeles, Atlanta and Denver.

Never before in our history, a foreword to the compilation declares, has there been such a general willingness on the part of individuals and private organizations to unite in working for the constructive upbuilding of our commerce and industry through greater efficiency of each group of related interests. The exchange of ideas and knowledge among competitors which would have been considered commercial suicide at the beginning of the present century is now deemed mutually beneficial and constructive—a distinct contribution to higher business ethics.

Waste Ruling Hits Pulp Mill at Everett

EVERETT, Wash., June 14, 1929.—Ruling of the state health and fisheries department that waste sulphite from the proposed new Zellerbach pulp and paper plant here could not be disposed of in the Snohomish River aroused a storm of protest here.

Following the ruling, K. O. Fosse, president of the International Wood and Sulphite Company, the Zellerbach subsidiary which is building the plant, announced that the ruling meant that the plant could not be built on the site near the Canyon Lumber Company's plant, which had been selected.

The state health and fisheries department ruled that the plant would have to dispose of the sulphite waste in Steamboat Slough, an arm of Puget Sound. Cost of pumping the waste to Steamboat Slough would be prohibitive, officials said.

The decision was scored, it being pointed out that Steamboat Slough has as many fish as Snohomish River that would be affected.

A committee left for Olympia to point out the injustice of the ruling.

Hearings on China Clay and Talc

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 26, 1929.—Since the subcommittee of the Senate Finance Committee held hearings week before last on the paper schedule of the bill a number of witnesses have appeared before other subcommittees on matters of interest to paper manufacturers.

Henderson Inches of Boston, Mass., representing importers of English china clay, asserted that there need be no duty on china clay, which is now taxed at $2.50 a ton and is unchanged in the House bill. Domestic producers would continue to sell if all duty were removed, he said.

Representing 54 paper manufacturers and the Paper Manufacturers Clay Committee, New York City, H. B. Mills agreed with the testimony of Mr. Inches, asking a return to the 1913 tariff rate on clays. He emphasized that so far as the paper industry is concerned, it is necessary to use imported filler and coated clay in order to get the superior quality needed, which domestic producers cannot supply.

W. S. Baylis of the Filtrol Company, New York City, appeared in behalf of a new classification separating bleached or activated clay from its present grouping with manufactured fuller's earth dutiable at $3.24 a ton in paragraph 207. He described this new product as hydrous aluminum silicate, and asked that it be put under an ad valorem duty of 40 per cent, or $15 a ton. Last year's domestic production, Mr. Baylis testified, was 10,000 tons.

Michael Doyle, of the International Pulp Company, New York City, testified in behalf of a change made by the House in the present law on ground, washed, or powdered talc in paragraph 209. Here the duty was changed from 25 per cent ad valorem to ⅜ of 1 cent a pound.

Mr. Doyle stated that while glad to accept this increase his company would prefer ½ of 1 cent a pound.

Levi Cooke, speaking for Charles A. Wagner, of Philadelphia, and Samuel H. Clark, of Whittaker, Clark and Daniels, Inc., New York City, declared that the talc represented by Mr. Doyle was of a peculiar characteristic giving it geographical monopoly with no competition. He said that the House specific duty was comparable to a 40 to 70 per cent ad valorem duty.

Summer Chemical Course at U. of M.

The Department of Chemistry and Chemical Engineering of the University of Maine announces general courses in Chemistry and in Pulp and Paper Chemistry and Technology, July 1 to August 9. In the 1929 summer session, prospective students will be able to undertake various general chemistry courses or pulp and paper subjects exclusively or a combination from among a number of subjects. All work completed will be given the regular University credit for either the Bachelor's or Master's degree. For Master's degree credit, however, subjects must be numbered above 50. Transference of credits to other institutions will be arranged for as during past years and it is suggested that students make inquiry regarding such transfer credit. Students not seeking credit will not be required to take examinations. As there is uncertainty as to the demand for some courses, only those are listed which are normally taken by a sufficient number of students.

The work given in chemistry and pulp and paper work during the summer is designed to meet the specific needs among others of pulp and paper mill men with or without technical training who have had practical experience who desire to gain a scientific understanding of important phases of pulp and paper manufacture and testing or phases of work with which they are unfamiliar, also engineering and chemistry students.

Falulah Paper Co. Becomes Corporate Member

The Falulah Paper Company, Fitchburg, Mass., has just become a corporate member of the Technical Association of the Pulp and Paper Industry.

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Liquid Chlorine
Bleaching Powder
Bicarbonate of Soda
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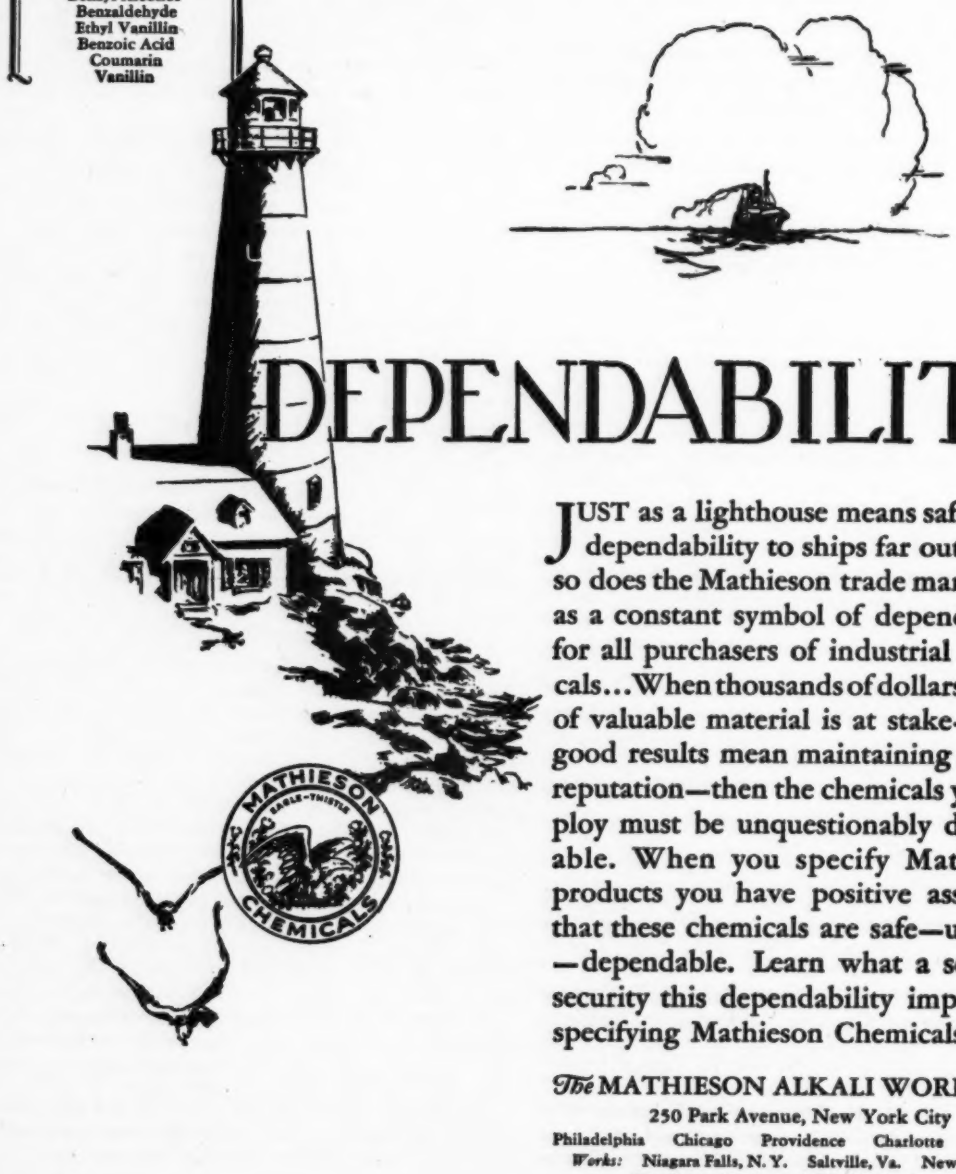
Vanillin



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Edited by
RONALD G. MACDONALD, Secretary

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts and Bibliography of the Technical Association of the Pulp and Paper Industry

By Clarence J. West, Chairman

"Kerosene Test" for Roofing Felt. P. W. Godwise. Paper Trade J. 87, No. 12, 60 (Sept. 20, 1928). The test consists essentially in saturating the sample of dry felt with a measured volume of kerosene, which is considered to be a suitable liquid saturant, to determine the amount of voids in the sample so as to calculate therefrom the theoretical possible per cent of asphalt saturation. The technique of the test is described in detail.—A.P.-C.

Schur's Freeness Indicator and Refining Control. M. O. Schur assignor to Brown Co. U. S. pat. 1,653,125, Dec. 20, 1927; Paper Trade J. 87, No. 2, 55-62 (July 12, 1928). A mathematical analysis of the process whereby pulp may be picked up on a cylinder mold, together with an experimental investigation, have shown that, within certain limits, if the rate of flow of white water is multiplied by the thickness of the pulp mat, when the latter has been subjected to a standardized pressure, the product is practically constant for pulp of a given quality and may be considered to be a direct measure of slowness or freeness, provided that the rate of rotation of the cylinder mold and the hydraulic head, temperature and consistency of the stock are kept constant. Or if the stock consistency and hydraulic head are kept constant and the temperature is constant or compensated for, the slowness of the stock may be determined by measuring either the thickness of the pulp mat or the rate of flow of the white water. A portion of the stock from the refiner is sent continuously to a vat containing a rotating cylinder mold whereon is deposited a layer of fibers. The rate of flow of the white water and the thickness of the mat on the cylinder are both measured; and by means of an indicating or recording instrument these two factors are multiplied one by the other to give a reading which is an indication of the freeness, and hence of the slowness, of the stock. Provision is made by which the operation of the jordan is automatically controlled by the devices which measure the rate of flow of the white water and thickness of the pulp mat on the cylinder mold, so as to ensure a predetermined slowness of the stock. The stock from the jordan is passed through a consistency regulator before being delivered to the instrument. Variations in the temperature of the stock due to external conditions are either compensated for, or the temperature of the stock in the vat of the instrument is maintained constant. Means are provided for maintaining a constand hydraulic head of white water through the mat.—A.P.-C.

Radio Moisture Tester. James d'A. Clark. Eng. pat 275,741, Aug. 18, 1927; Pulp and Paper 26, 1124-1126 (Aug. 16, 1928). A complete description of Clark's device for determining, indicating and controlling the moisture content and quality of paper on the machine.—A.P.-C.

Sand Trap. S. Milne. Eng. pat. 291,154, Feb. 25, 1927. In a continuous process for removing impurities from pulp, the latter is caused to flow through a vessel in which the impurities are separated continuously at one or more stages, and are passed back to a preceding stage for further treatment. The vessel in which the process is carried out is divided by partitions into compartments in which are supported openended cylinders connected by branch pipes to the adjoining compartments and to the heat box, respectively. The impurities are drawn through gratings at the bottom of the several compartments by pumps placed under the compartments, and are delivered to the top end of the preceding compartment, finally reaching a strainer above the head box. In a modification the last strainer may be placed below the first compartment to receive the impurities by gravity and alternatively all the compartments may drain by gravity into one such strainer. In a further modification the compartments are arranged in steps formed by partitions of progressive height over the tip of which the pulp flows.—A.P.-C.

Super Tremor Strainer. Anon. World's Paper Trade Rev. 89, 1518, 1520 (May 4, 1928). An illustrated description of the latest type of the Tremor screen constructed by the Watford Engineering Works, Watford, England, the chief feature of which is to permit of altering the "dither" or stroke of the drum while working.—A.P.-C.

Strainers I Have Worked With. Anon. Paper Maker and Brit. Paper Trade J. 75, 599, 601 (June 1, 1928). An account of a practical paper maker's experience with some early types of pulp and paper screens.—A.P.-C.

Pulp Strainer. D. Russell and J. R. Happer. Eng. pat. 286,814. A train of rods, in the form of rollers carrying spacing disks at their ends, pass down rails under gravity and regulated by an escapement device, a straining bed being formed which receives pulp from a stuff box and allows strained pulp to enter a collecting through under the rods. Below the escapement the rods, separate and the rejected matter falls into a box. The rods are returned to the upper end of the apparatus by a conveyor. The inclination of the rails can be adjusted by a screw-jack which turns the supporting frame about a pivot. A cam and follower impart a slight dither to the track.—A.P.-C.

Possibilities of the Jordan. G. S. Brazeau. Paper Ind. 10, 664-665 (July 1928) Paper Trade J. 87, No. 4, 53-54 (July 26, 1928). A brief discussion of the possibility of eliminating beaters in the treatment of pulp by hydrating it exclusively in Jordans, and of the factors which make an efficient Jordan.—A.P.-C.

Pulping Engine. J. White. Eng. pat. 21,173, Mar. 9, 1927. In a beating engine wherein the plate box is urged toward the roll by hydraulic pressure, the movable bedplates (two in number) are guided by a rearward centrally located elongated guide, preferably of cylindrical form and slidable in an elongated guideway in the wall of the pressure chamber. The bedplates embrace less than half of the beating roll and each is provided with the usual flexible joints, the lower plate moving away from the roll under gravity and upper plate under the action of a counter weight when the hydraulic pressure is reduced. The plate chambers are separate and the pressures therein may differ. The cover of the plate boxes is hinged to facilitate changing the plates. In a modification the hydraulic actuating means for each bedplate is located exterior of the roll chamber and comprises a diaphragm, in a chamber, and is provided with cylindrical guides engaging sockets. In a further modification the plate box, having a cylindrical guide in a socket, is carried in a member having supplementary guide surfaces. In a still further modification the bedplates extend substantially one-third round the roll and are guided by a cylindrical member and by faces formed on its edges.—A.P.-C.

Conical Refining Engine. Auguste Avot. Fr. pat. 639,713. In order to prevent accumulation of stock in the feed chamber of jordans and similar refines, with all the troubles which such accumulations give rise to, a suitable agitator is from settling out and packing, and provision is made for withdrawing from the bottom of the chamber heavy and hard impurities which might deteriorate the refiner.—A.P.-C.

The Yankee Machine. R. J. Kennedy. Paper Ind. 10, 437-441, 446a (June), 651-652 (July 1928). A detailed description of the machine and its operation.—A.P.-C.

Improved Shaking Apparatus for Fourdrinier Machines. C. E. Mackleme. Paper Ind. 10, 666-668 (July 1928). A description of the Aldrich highspeed shake mechanism and of the Aldrich removable fourdrinier, with a discussion of their advantages.—A.P.-C.

Regulating and Gauging the Thickness of Paper. P. Offenheimer, S. Block and E. Offenheimer, trading as Cellulose fabrik Okriftel a. M. Offenhe imper. Eng. pat. 285,311. The thickness of paper is regulated by a lath placed behind the usual froth ledges and mounted on a lath carrier vertically adjusted by means of a screw spindle fitted in recesses in end plates rotatable by a worm and sector in the side cheeks. Local adjustment through the length of the lath is made by regulating screws. Jets of liquid, steam or gas act on the gap between the cheeks and the wire cloth to prevent leakage of pulp.—A.P.-C.

Fourdrinier Machine Table Roll Layout. Maurice Cartiaux. paper Trade J. 87, No. 9, 54 (Aug. 30, 1928). In paper machine tables as at present constructed the table rolls are closest near the breast roll and the space between them is gradually increased on passing towards the couch. By reversinug this procedure (the exact spacing between the table rolls depending on the construction of the machine and the grade of paper), it is claimed that a stronger sheet, better formation, greater output per hour and saving in stock and filler can be obtained.—A.P-C.

Suction Box for Paper Machines. F. W. Vickery. Eng. pat. 290,326. The friction between the wire cloth or felt and the suction box of a paper machine is lessened by maintaining a fluid layer between the ends of the suction box and the wire or felt. For this purpose a jet of water may be applied from outside or from inside the suction box. The pressure of water may be controlled by the vacuum in the suction pipe, the suction acting to pull down a piston against a spring to adjust the opening of the valve in the water pipe. The edge of the wire or felt may be formed with an impervious strip attached to, woven, or formed therewith, or an endless band adjustable to the width of the sheet may be used below or above the wire cloth and driven separately. The fluid layer may be supplied to the sides of the suction box through porous insets. The rolls forming the side or sides and bottom of the suction box may be driven by detachable gearing supported separately from the machine and coupled therewith through dog-clutch members, ratchet teeth being provided on the driving and driven shafts, which teeth, when the dogs are separated are engaged by pawls each comprising (for example) 8 pawls-spaced vernier fashion, to hold the shaft in position and ensure ready re-engagement. These pawls are disengaged when the dog-clutches re-engage the plunger. Wipers may be provided in the suction box contacting lightly with the wire, and a baffle may be used to prevent the leading roll from flinging water on the wire. A film of water may also be applied between the bearing blocks and distance pieces and the rolls of the suction box.—A.P.-C.

Wiper Roll Improves Sheet Formation on Fourdrinier Machines. C. W. Valentine assignor to the Bagley and Sewall Co. U. S. pat. 1,645,766, Jan. 17, 1928; Paper Trade J. 87, No. 9 53 (Aug. 30, 1928). A wiper roll, preferably made of rubber is wound over the wire near the breast roll and is provided with a large number of radial fins. It is so placed that several of the fins simultaneously dip into the layer of stock on the wire, but without coming into contact with the latter. It is driven so that the fins dipping in the stock travel in the same direction as, but at a slightly lower velocity than the wire. As each of the fins leaves the stock, the surface of this fin has a wiping action on the stock surface, thus breaking down any bubbles that may be moving along on the surface of the stock. As the fins move at slightly lower velocity than the stock, there is a tendency for the latter to pile up behind the fins causing an intermingling of the fibers which overcomes their tendency to distribute themselves length-wise and improves the formation of the sheet.—A.P.-C.

Making Cotton Dryer Felt. Anon. Pulp and Paper 26, 989-990 (July 19, 1928). A brief description of the cotton dryer felt looms recently installed by Ayers, Ltd., in their new cotton plant at Lachute, Quebec, which can make felts for the widest paper machines now in use.—A.P.-C.

Economy of Stabilized Low Pressure Steam in Paper Mill. Donald Rose-Ross. Power (June 26, 1929); Paper Trade J. 87, No. 6, 63-66 (Aug. 9, 1928). Considerable steam economy and improved operation were obtained in four-machine fine papers mill by connecting up all the engine exhausts to a common steam header so as to supply the paper machine dryers with steam at a practically constant pressure, and deficiency in the amount of exhaust steam required for drying being made with live steam, or excess of exhaust over the heating requirements being sent to feed water heater or to the heating system for the building during the winter. The installation, which is described in detail resulted in a saving of 1100 pounds of steam per ton of paper.—A.P.-C.

Graphic Metering on Sectional Drives. K. L. Howe. Paper Mill 51, No. 31, 4, 8, (Aug. 4, 1928); Paper Trade J. 87, no. 7, 63 (Aug. 16, 1923). A brief discussion of the advantages to be derived from load charts for the several sections of paper machine drives, particularly under abnormal or fluctuating conditions.—A.P.-C.

Calender Rolls. C. G. Haubold. A.-G. Rr. pat. 633,101. Instead of using chilled iron rolls, steel rolls, the surface of which is chromed, are used. This allows of using longer rolls of smaller diameter.—A.P.-C.

Efficiency of Sectional Electric Paper Machine Drives. M. Schiebuhr. Papier 31, 737-749 (July 1928). A discussion of the economic and technical advantages of sectional electric paper machine drives over mechanical drives, whether by steam engines or by means of a single electric motor.—A.P.-C.

Suitability of Eucalyptus for Paper Pulp*

By Bennett Preble[1]

Pulp and paper men in recent years have taken much interest in the development of new species to take the place of the rapidly disappearing supplies of the softwoods which are at present so necessary to the industry. In 1922 seventy-seven per cent of the wood used for pulp in the United States was either spruce, fir or hemlock.[2] As much as fifty-five per cent of the pulpwood was from a single group of conifers, the spruces. With this concentration on a small number of species, it is not surprising that it is now becoming increasingly important to find ways in which other woods can be economically used in place of the conifers. A recent bulletin[3] issued by the U. S. Department of Agriculture gives the results of tests made at the Forest Products Laboratory in Madison, Wisconsin, on some ninety-four American woods. The pulping tests were made by the four commercial processes now in general use. A large percentage of the woods were those known as hardwoods. The pulp and paper industry in 1922 used 790,000 cords of hardwoods and about 4,750,000 cords of softwoods.

One of the most interesting groups of hardwoods is that which includes the genus eucalyptus. There are over 300 species of eucalypts, all of them native to Australia or Tasmania. Many of them are noteworthy for their rapid growth and for the great size they often attain. About 65 or 70 species have been planted in California.[4] Because they grow so fast and their wood is usually of such a beautiful texture, much has been expected of these trees in the past. Between 1900 and 1910 many plantations were set out in California, and companies were organized to exploit the timber. The difficulty of seasoning the wood, especially that of the species selected for most of the plantations, was so great that the only use found for most of the trees was as fuel or, in some localities, as windbreaks. Most of the plantations where the trees grew successfully have been left standing because the wood was not valuable enough even as firewood to pay for cutting the trees. In some places the leaves of the trees have been used in the production of eucalyptus oil, but the oil from California species is a poor grade because of its high pinene content. On the whole, it seems that the wrong species have been planted for use either as timber or in the production of the oil.

The possibility of using the trees for paper pulp has lately appeared to be worth investigating. As would be expected, this possibility has been much considered in Australia and in Tasmania. Experiments have been conducted on pulp manufacture in other countries where the eucalypts have been found to be a fast growing species.

The purpose of the work described in this article was to determine pulping characteristics of the principle species of eucalyptus grown in California. The species selected were those which have shown themselves to be capable of rapid growth under conditions prevailing in large sections of the state. One species, the so-called blue gum, is found in nearly all parts of California. It is also an extensively planted species in other countries, such as Portugal[5], France, and North Africa.[6] It is better to speak of the blue gum found in California as eucalyptus globulus as there are other species which are known in some localities as blue gums. The other species selected were eucalyptus corynocalyx or sugar gum, and eucalyptus tereticornis or gray gum. It was originally intended that only the sulphate process should be used in pulping the different woods, but later developments made it necessary to change to other processes.

Previous Work

As the trees are indigenous only to Australia and Tasmania, where they are found in great quantity, it is natural that most of the previous work should have been done in these two places. Starting within the last twelve or thirteen years, an impetus having been given by the shortage of paper-making materials during the war, systematic investigations were made of some of the principle eucalypts.[7] The small amount of work done before that time had not been in agreement. For example, in 1911, the California "blue gum" was found "by exhaustive research work" to be an excellent material for paper pulp. Another investigator, H. E. Surface, when asked to report on the eucalypts by the government of Tasmania in 1915, found that of three species tested,—E. regnans, E. globulus, and E. obliqua,—obliqua was the best for paper pulp, and that none were suitable for pulping by the Sulphite process or the mechanical process. All produced a good grade of pulp by the Soda process.[8]

In 1916 a committee was appointed by the government of New South Wales to inquire into the suitability of some of the Australian woods for paper pulp. About sixty species were inevstigated in the laboratory by the Soda process, among them many eucalypts, and it was found that of the different groups of eucalyptus species the "ash" group "had characters distinctly promising for pulpwood production." Unfortunately the "ash" group is very poorly represented in California, all of the large eucalyptus stands being composed of the so-called "gums." This latter group was found to be "hardly suitable for paper-pulp production, as the shortness and brittleness of their fibres, difficulty in bleaching and felting, militated soemwhat against their usefulness for the purpose." In 1918 the committee sent some logs of E. Dalrympleana, a typical member of the "ash" group, to the Forest Products Laboratory at Montreal, Canada, to be tested on a semi-commercial scale. The work was not completed, but it was found, among other facts, that the fibres averaged 1.11 mm. in length. One of the logs was later used by W. Clifford and B. C. Hope of this country for semi-commercial tests at Canton, N. C., by both the soda and sulphate processes. Both processes produced a very good grade of pulp, the yield by the latter being 47.8 per cent of the dry weight of wood used. Two of the members of the New South Wales committee, R. T. Baker and H. G. Smith, published the report from which the information in this paragraph is taken.[9] They are also the authors of a valuable work entiled "A Research of the Eucalypts and Their Essential Oils"[10].

In 1920 the Institute of Science and Industry at Melbourne began a survey of the paper-making qualities of Australian woods. Results of work by the soda process were published in 1923[11]. Immature wood was found to be better than old timber. The species found to be most suitable were E. regnans, E. delegatensis, E. sieberiana, E. obliqua, and E. globulus. The last-named is the only one of the species tested that has been extensively planted in California. Semi-commercial scale pulping tests by the soda process were made and confirmed the results of the laboratory tests. Mill scale paper-making experiments showed that, by slightly modifying the standard methods of beating the pulp, paper

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* Contribution from Gates Chemical Laboratory, California Institute of Technology, No. 208.

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[2] and [3] "The Suitability of American Woods for Paper Pulp." S. D. Wells and John D. Rue. Dep't Bulletin No. 1485 of the U. S. Dep't of Agriculture. (1927.)

[4] "Growth of Eucalyptus in California Plantations." Woodbridge Metcalf. Bulletin 380 of the College of Agriculture, University of California. (1924.)

[5] Australian Forestry Journal, pages 80 to 82, March, 1926.

[6] Australian Forestry Journal, pp. 100-101, April, 1926.

[7] "Australian Wood Fibres." R. T. Baker and H. G. Smith. Technological Museum, Sydney, N. S. W. (1924.)

[8] "Australian Wood Fibres." p. 12.

[9] "Australian Wood Fibres."

[10] "A Research on the Eucalypts and Their Essential Oils." R. T. Baker and H. G. Smith. 2nd Ed. (1920). Technological Museum, Sydney.

[11] "The Manufacture of Pulp and Paper from Australian Woods." L. R. Benjamin. Bulletin 25 of the Australian Institute of Science and Industry. (1923.)

containing from 60 to 70 per cent eucalyptus pulp could be made to give higher bursting and tensile strength tests than paper made entirely from similarly treated spruce sulphite pulp. The finish of the eucalyptus paper was as good as that of the spruce sulphite paper and the opacity was superior. The report of the work of the Institute of Science and Industry was published in a bulletin printed on paper containing 60 per cent of soda pulp from Australian eucalypts, 30 per cent of imported chemical pulp, and 10 per cent of waste paper.

An investigation into the pulping of eucalypts by the sulphite process was begun by the Australian Institute of Science and Industry in 1924. Later some experiments were started on the production of groundwood pulp. Results of the work on production of ground wood and of some of the work by the sulphite process were published by L. R. Benjamin in 1927[13]. The species investigated were E. regnans, E. obliqua, E. delagatensis, E. globulus, and E. sieberiana. From the results described it is evident that the problem of whether these eucalypts are suitable for the manufacture of news print is almost entirely economic. Many paper-making tests were made using different proportions of eucalyptus sulphite pulp, eucalyptus groundwood, and spruce sulphite pulp. Paper made entirely of eucalyptus sulphite was much stronger than even the high quality English news print, but did not have a very good finish. Pulp mixtures of 70 per cent eucalyptus sulphite and 30 per cent eucalyptus groundwood yielded paper giving better bursting and tearing tests than English news print. The opacity of the paper was higher than standard news print, the untinted color was superior, and—after sizing—the paper had approximately the same ink absorbency. The work with some of these immature eucalyptus species indicated that the sulphite pulp could be produced in Australia at a cost that was much lower than the price of sulphite pulp in other countries. Production of ground wood from the eucalypts was estimated to be cheaper than from other trees, but only because of the lower cost of pulpwood.

Some work on the pulping of two eucalyptus species by the sulphite, soda, sulphate and ground wood processes was done by Miller at the Forest Products Laboratory at Madison, Wis. The species tested were E. saligna and E. tereticornis, both of them members of the group of "gums," and the wood used was from trees grown in the state of Sao Paulo, Brizil. The results with the soda and sulphate processes were favorable, and the sulphate process applied to E. saligna gave a good yield of a satisfactory grade of pulp. The sulphite process with E. tereticornis and the ground wood process with both species did not give good results. Some work was also done by Miller for the Paulista Railway Company in Brazil, but the results are not known. The paulista Company is reported to have built a 50-ton per day plant in Brazil.

In their investigation of Moroccan woods, Messrs. Dupont and Soum[13] included work on the eucalyptus globulus. The blue gum and several other species of eucalyptus have been planted in various parts of North Africa as shade trees along the roads, along railroad lines and in plantations. Besides giving an analysis of the wood, which was in very poor agreement with the results quoted by Schorger[14] from the work of Mahood and Cable[15], conditions were given under which is was found possible to produce a 48.5 per cent yield of a satisfactory grade of easy bleaching pulp by the soda process.

The eucalypts are classified into groups such as the "gums", the "ash" group, and the "peppermints". The variation within the groups is often great, as the work described in this paper will show. Although all three species tested are "gums", their pulping characteristics are widely different. The table worked out by Baker and Smith[16] giving the evolution of the species of eucalypts from the genus angophora, places these three species in widely separated branches. Work on the pulping of species belonging in the group of "gums" was done only on a laboratory scale by Baker and Smith, as it was early shown that the "ash" group was generally better suited to the purpose[17].

Eucalyptus globulus is a tree which grows rapidly and reaches great size in its native habitat. Eighty per cent of the groves in California are of this species[18]. On land which is sutable, from an economic standpoint, for the growth of the tree, the average yearly increase per acre is between two and five cords. E. corynocalyx, the second species tested, is a tree which is very drought resistant,—this and its susceptibility to injury by frost explain the fact that it is found chiefly in Southern California. Groves of this tree, the sugar gum, make up 4 per cent of the eucalyptus plantations of the state. The average growth per year in California plantations is 1.22 cords. The tree is tall and straight, like the blue gum. Supplies of these two species were obtained from the groves of the Murphy Oil Company at East Whittier[19]. The logs were cut from trees about sixteen or seventeen years old and measured from 11 to 12.5 inches in diameter in the case of the blue gum, and between 10 and 11 inches in diameter in the case of the sugar gum. The third species selected was E. Tereticornis, known in California as the gray gum. It is similar to another species known as the red gum, (E. rostrara.) The two taken together account for fifteen per cent of the total stand of eucalyptus trees in the state and are thus second in importance to the blue gum. With the sugar gum occupying four per cent of the stand, there is only about one per cent of the area devoted to growing eucalypts in California left to be distributed among the rest of the seventy-odd species planted. Because of the similarities of gray and red gums, only the former was tested. E tereticornis has wood which is usually a little straighter grained than that of E. rostrata, and other external characteristics made it seem slightly more suitable. The wood of the tree is used for timber in Australia. It is more resistant to heat and drought than E. globulus. The mean annual growth of the tree is estimated to be about one cord per acre. It is unfortunate that lack of time prevented the testing of Manna Gum, E. viminalis, as it grows well and rapidly in a variety of conditions, and is frost resistant.

Experimental

In the greater part of the work already done to determine the pulping qualities of the different species of eucalyptus, the species used have been those, with the exception of E. Globulus, which are not plentiful in California. Most of the work appears to have been done using the soda process. Accordingly it seemed to be desirable to experiment with the most common California species by some other standard process, and the sulphate process was chosen. In carrying out the work the chief result sought was to secure data on the yields and quality of pulp obtainable on a semi-commercial scale, and also to determine the other factors important in a consideration of the suitability of the wood for paper pulp.

For preparing the wood for the digester no chipper was available as the nearest pulp mill was more than 500 miles distant. The difficulty was surmounted by cutting the logs into discs whose thickness was equal to the length of chip desired. The discs were then split into chips measuring ⅝ inch with the grain, ⅛ inch thick, and of any width between ½ and 2 inches. In preparing the samples of E. tereticornis a different method was used. The log was cut into ⅛ inch boards and these were sawed at right angles

[13] "Newsprint—Preliminary Experiments on Mechanical Pulp from the Eucalypts." L. R. Benjamin. Bulletin 31 of the Council for Scientific and Industrial Research, Melbourne. (1927.) (This bulletin is of the same series as Bulletin 25 of the Institute of Science and Industry.)

[13] "Investigations on the Utilization of Some Moroccan Woods." G. Dupont and M. Soum. Bull. Inst. Pin., No. 33, pp. 41-44 (Feb. 15, 1927). Abstract in Paper Trade Journal, T. S. 86, No. 26:338.

[14] "Chemistry of Cellulose and Wood." A. W. Schorger. McGraw Hill Book Co. (1926.)

[15] "The Chemistry of Wood. IV.—Analysis of the Wood of Eu. globulus and Pinus Monticola." S. A. Mahood and D. E. Cable. J. Ind. Eng. Chem., 14:933-4. (1922.)

[16] "A Research on the Eucalypts." (See [10] above.) Page 21.

[17] "Australian Wood Fibres." p. 12.

[18] See Bulletin 380 described under [4].

[19] See pp. 23-24 of Bulletin 380 described under [4].

to the grain. The chips were thus any width up to the diameter of the log, but measured ⅝ inch with grain and were ⅛ inch thick The chips produced by both methods were rather more uniform than the average run of chips obtainable in the mill. Knots were not intentionally removed, but the fact that the wood around the knots usually broke off in larger pieces caused many of the knots to be screened out with the other oversize pieces. Dust and under size pieces were screened out in a square mesh, half-inch screen. Bark was completely removed from the logs before the chipping operation was started. The bark is very easily stripped off with all three of these species. By the time they were used in the digester, the moisture content of E. globulus and E. corynocalyx was from 18 to 20 per cent. That of E. tereticornis was over 42 per cent, as the wood was used very shortly after being chipped.

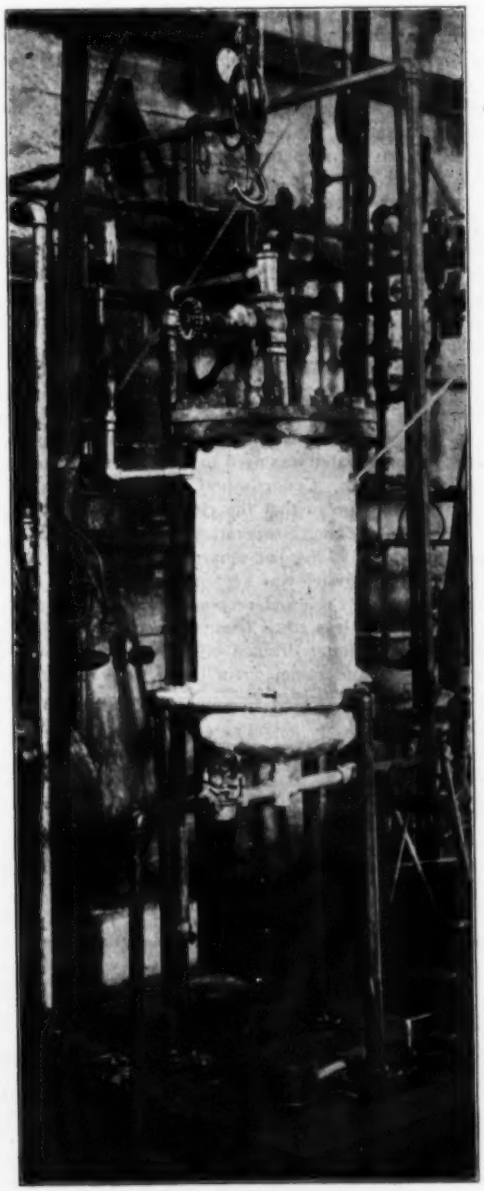

FIG. 1

The digester in which the tests were made. Steam entered through the pipe shown extending across the top of the photograph and down the right hand side to the bottom connection. The drain pipe extends to the left from the bottom connection.

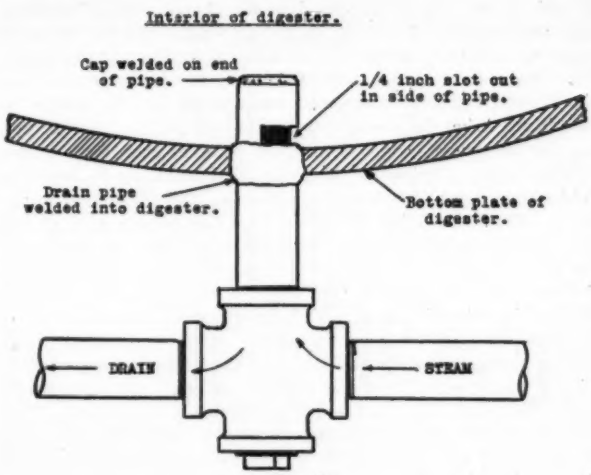
Interior of digester.
Cap welded on end of pipe.
1/4 inch slot cut in side of pipe.
Drain pipe welded into digester.
Bottom plate of digester.
DRAIN
STEAM

FIG. 2

Detail of the bottom connection on the digester

Using a two-foot section of 10 inch, 250 pound pipe, a digester was constructed at a reasonable cost by welding a flange to one end of the pipe and a curved bottom plate to the other. In the side of the digester, near the top, a section of ½ inch pipe was welded in at a slant for a thermometer well and a small plate welded over the lower, inside end to close it. A section of ⅜ inch pipe was welded in on the opposite side near the top for the steam gauge. The ⅜ inch pipe was flush with the inside of the digester at one end. The projecting end was supported by a triangular steel plate. Much of this detail can be seen from Fig. 1.

In the center of the steel plate, which was bolted to the top flange as a lid to the digester, was welded a short length of one inch pipe. The pipe was threaded at both ends for attaching a relief valve and, on the inside, a fitting to reduce loss of liquor through the relief line. The combined steam inlet and drain was placed at the center of the bottom plate. This part was a ¾ inch pipe with the end inside the digester capped as shown in the sketch. (Fig. 2). Draining liquor from the digester after a cook was never a difficult operation with this arrangement. The body of the digester was well lagged with magnesia pipe covering, the thickness of the insulation being about an inch and a half, and the lagging was painted with aluminum paint. The large amount of condensation always found in such small size apparatus when direct steam heating is used was thus cut down to within reasonable limits.

In making the liquors for this research, processes were used that are very different from the methods of commercial practice, as the latter are not suitable for small scale work. The liquor obtained had essentially the same composition. At first the liquor was made by dissolving sulphur in caustic solution under pressure and at a temperature of about 134 deg. C. This method was thought to give too much sodium thiosulfate for the amount of sodium sulfide produced, and was abandoned in favor of a simpler method in which hydrogen sulfide gas was dissolved in a caustic soda solution until the desired ratio of sulfide to total caustic had been obtained. The total caustic was considered to be the sum of the sodium hydroxide present and the sodium hydroxide equivalent of the sodium sulfide.

The chips for the cook were weighed and just enough were used to fill the digester to within fifteen or sixteen inches of the lid. This distance was provided so that the loss of liquor through the top valve while relieving would not be too great. The total volume of the charge was thus usually near 2.8 gallons or about 0.4 cubic feet. The weight of total caustic was based on the weight of oven dry wood, and for kraft pulp amounted to between

24 and 23 per cent of the wood in the charge. Easy bleaching pulp was produced by using 30 per cent total caustic. Enough water was added to insure nearly covering the ships at the beginning of the cook. When chips and liquor had been measured in, the lid was bolted on and steam run directly into the charge to heat it and bring the pressure to the desired point. After steaming for the proper length of time, the pressure was raised to the cooking point. During the cook the relief valve on the top was held slightly open to allow escape of gases and to improve circulation. Good circulation is essential to a high quality of pulp, but it is easily obtained in such small digesters. On completion of the cook, pressure was relieved very quickly. It is probable that the fact that the design of the digester did not permit the contents to be "blown" out as with large digesters had something to do with the chips of even the easily pulped E. globulus wood holding their original shape fairly well until removed and washed. Liquor was drained from the digester and the contents washed, using the relief valve on top, before the lid was taken off. The digester always drained quickly. When the pulp was removed, it was placed in a box with a 14 mesh screen for a bottom and then washed through onto a 75 mesh screen. An ordinary garden hose nozzle accomplished the washing satisfactorily. The 75 mesh screen formed the bottom of a second, shallower box that exactly fitted the upper box. The amount of screenings left on the upper screen was negligible with the pulp from E. globulus. The screened pulp was dewatered in a small centrifuge. The yield of pulp was determined by weighting the pulp as it came from the digester and computing the oven dry weight from a representative sample which was very carefully taken as the digester was emptied of pulp. The oven-dry weight of the screenings left after washing was subtracted from the total weight to give the weight of screened pulp.

Results of the cooks are given in Table I. The difference in the ease with which the three species are pulped is striking. Eucalyptus globulus wood is very easily converted into pulp. When cooking it by the sulphate process, it was found necessary to reduce the cooking time to about a third of that usually needed for coniferous woods. The total caustic was also less than the ordinary figure for woods such as spruce and hemlock. It is probable that even in cook No. 4 the resulting pulp was too "soft" to be called a Kraft pulp, and the cooking time or the liquor concentration should have been still further reduced. With E. corynocalyx exactly the opposite was true. Even under the conditions of cook No. 18, the severest conditions of any of the cooks, the resulting pulp was raw and full of small, black specks. Though better than the other cooks of this wood, the color of number 18 was not satisfactory. E. tereticornis was a little more difficult to pulp than E. globulus. The pulp was darker than that from the Blue Gum and did not have the same reddish coloration.

Objections made by owners of houses adjacent to the campus to the disagreeable odors produced when pulping wood by the sulphate process made it necessary to change to other methods when only eight cooks had been completed. Results of three cooks by the Soda process are shown,—one of them having been made by a modification which will be described later. Several cooks were made by a method which will be referred to as the Hypo process. As has been mentioned, the majority of previous tests on the suitability of the eucalypts for paper manufacture have been made by the soda process. The procedure used when making the soda cooks was similar to that described for the sulphate cooks, except that the required amount of caustic was weighed out for each cook. About a gallon of water was used to dissolve the caustic. (One-half gallon for cook No. 15.) Results of three of the soda cooks are noted in Table I. E. corynocalyx yielded about the same quality pulp by this process as by the sulphate process. Cook No. 10 was made by a modification of the usual Soda process which made it possible to obtain the effect of a prolonged cooking in a short time. In the small digester used, the amount of condensed steam collecting during a cook which lasted 3 or 4 hours was not so great as to cause trouble. Such a short period was not enough to properly cook the Sugar Gum wood, but when longer cooks were tried, the condensed steam filled the digester too full. The modification was successful in overcoming the difficulty. Instead of using just enough cooking liquor to effect solution of the non-cellulosic materials in the wood, at least twice that amount was poured over the chips. Enough water was used to nearly cover the chips at the beginning of the cook. Condensation, of course, quickly increased the quantity of liquor so that the chips were more than covered by the time the cooking temperature had been reached. Pressure was brought to 95 lbs. per square inch within 8 minutes after starting cook No. 10 and was kept at that point for 25 minutes, and the pressure then relieved very quickly. As soon as the pressure in the digester was equal to atmospheric, the drain line was opened and all the liquor drained off. Next the drain and relief lines were closed and steam again let in until the pressure was

TABLE 1.—DATA ON PULPING TESTS

Process	Total Alkali [1]	Sulphidity [2]	Cooking Time [3] 1st Per. h.m.	Cooking Time [3] 2nd Per. h.m.	Cooking Time [3] Total h.m.	Pressure [4] (lbs.)	Yield Pulp	Yield Screenings	Bleach Consumption	Mullen Strength Test (cf. Table 2)	Cook No.	Species	Quality of Pulp
Sulphate (Kraft)	23%	16.7	0:40	2:00	2:40	110	....	0	....	....	2	E. globulus	Pulp light in color, soft. No screenings.
"	23	29.0	1:00	1:10	2:10	98	50.6	1.2	....	....	3	"	Not overcooked so much as first test.
"	20	29.0	0:40	0:50	1:30	98	50.4	2.6	35.0	91%	4	"	Good. Light color. Pulp still a little too much overcooked for Kraft.
Sulphate (E. B.)	30	29.8	0:35	2:00	2:35	98	46.3	0	13	94	5	"	Very light color. Good "Easy Bleaching" pulp.
Sulphate (Kraft)	23	29.8	1:00	2:00	3:00	98	45.9	2.8	....	36	8	E. corynocalyx	Gray, raw pulp. Color poor.
Soda	24	0	1:15	2:45	4:00	90	46.3	2.8	....	....	9	"	Similar to pulp from previous cook.
Modified Soda	50	0	0:25	0:41	1:06	95;103	43.5	1–2	....	....	10	"	Similar to pulp from previous cook.
	NaOH [5]	$Na_2S_2O_3$ [6]											
"Hypo"	19.5	16.5	0:32	2:58	3:30	98	53.0	0.05	35+	....	14	E. globulus	Pulp light in color—slight red tinge. Quality good.
Soda	19.5	0	0:31	2:54	3:25	98	28–30	22–24	....	....	15	"	This cook made to check method of previous cook.
"Hypo"	18.7	15.8	0:30	3:30	4:00	98	51.5	6.7	....	....	16	E. corynocalyx	Pulp very dark and raw.
"	20.7	17.6	0:30	4:36	5:06	98	48.4	2.6	....	....	17	"	Gray, raw pulp. Color poor.
Modified Hypo	50	38.4	0:44	1:26	2:10	95;100	42.7	0.06	42.4	....	18	"	Much lighter in color than previous cooks of this wood. A fair grade of pulp.
"Hypo"	22.85	18.0	0:32	4:00	4:32	95–100	43.8	0	36.8	....	19	E. tereticornis	Good pulp, soft. Lighter color than No. 18. darker than No. 14.
Modified Hypo	49.8	42.3	0:46	1:32	2:18	95;101	37.7	0	30.0	....	20	"	Similar to previous cook, but lighter colored.

[1] Total alkali as NaOH, given as a percentage of the weight of oven dry wood.
[2] Sulphidity = 100 times Na_2S divided by the total alkali.
[3] For ordinary cooks, the first period is the steaming time, the second period is the cooking time. For modified cooks, the time with liquor and the steaming period are given.
[4] The pressure during the cooking period is given. For modified cooks, the pressure for each period is given.
[5] The lower part of this column gives NaOH, NOT total alkali, as a percentage of the weight of oven dry wood.
[6] The balance of this column gives $Na_2S_2O_3$ as a percentage of the weight of oven dry wood. (Sodium thiosulphate, less water of hydration.)

as high as was possible with the type of boiler being used. The pressure during this steaming period was between 100 and 103 lbs. in all of the tests made by the modified processes. At the end of the steaming period, pressure was relieved and the pulp washed and treated as at the completion of cooks made by the ordinary soda or sulphate processes. The first cooking period allowed the chips to be thoroughly penetrated by the liquor. Enough liquor was retained in the wood to dissolve out the non-celulosic material during the steaming period. Gases were not relieved from the top of the digester during the cooking or impregnating period. In this way a high steam pressure could be used without the correspondingly high temperature, and it was possible to get good penetration before action on the non-cellulosic material started. In addition to the modified soda cook, (cook No. 10,) two modified hypo cooks were made. The only difference between the two modified processes is in the liquor used, the procedure being identical.

The Hypo Process

The "hypo" process is so-named because the cooking liquor is an aqueous solution of sodium hydroxide and sodium thiosulfate. The pulp from the process is practically the same as sulphate pulp, the purpose of the sodium thiosulfate used being similar to that of the sodium sulfide in the sulphate process. As would be expected from a consideration of the nature of sodium thiosulfate, the molal percentage of thiosulfate required is twice that of the sulphide. The process has probably never been used commercially, —its advantage to this work being the posibility of getting a pulp very similar to sulphate pulp without having the same objectionable odors. The liquors were made up by dissolving hypo crystals in water and mixing the solution with a solution of caustic soda. This method is, of course, too costly for use in the industry, but the liquor obtained is about the same as that produced in a modification of the sulphate process[20] in which instead of burning the black ash with salt cake, sulphur is introduced by mixing it with the lime sludge just before calcining. Once the liquor is prepared the balance of the process conforms exactly with the Sulphate process.

As will be seen by referring to Table I., the only satisfactory results from E. corynocalyx were given by cook No. 18 in which the modified hypo process was used, indicating that severe treatment by the standard Sulphate or Kraft process would yield a fair grade of pulp. In pulping the wood commercially much higher pressures should be used and a fair grade of pulp could probably be produced in 3 or 4 hours. Excellent results were obtained when the hypo process was applied to E. globulus and E. tereticornis. Cook No. 20 of E. tereticornis was made by the modified hypo process because an easy bleaching pulp was desired, but in a larger digester in which condensation was less an easy bleaching pulp could have been produced from this wood by the standard sulphate process merely by cooking somewhat longer and using 30 to 33 per cent total alkali.

The most important points to consider when determining the quality of pulp are (1.) the quality of paper which can be made from it on an ordinary paper machine, and (2.) the amount of bleaching solution required to completely bleach the pulp. It is also valuable to study the fibres microscopically; and it is important from an economic standpoint to know how much pulp a given amount of wood will yield. An attempt was made to partly answer the first point by sending samples of the pulp from three of the cooks to the testing laboratory of a paper company which volunteered to make test sheets of paper from the pulp and tests of the strength according to standard methods. The results of the tests are shown in Table II. The maximum strength only is shown in Table I. Unfortunately the tests do not include any of the pulp from E. tereticornis. Two things about the results of the tests with E. globulus are noteworthy. One is that it should have given such high tests as 91 per cent for cook No. 4 and 94 per cent for cook No. 5, and the other is that the maximum strength should have been reached in only 600 revolutions of the ball mill in one case and 1200 in the other. A ball mill was used to beat the pulp and the sample sheets were prepared with great care. The staff of the laboratory where the pulp was tested justly prides itself on the careful way in which all tests are carried out. When tested at the same laboratory, it is found that kraft pulp from hemlock wood usually developes its maximum strength only after 6,000 revolutions in the ball mill. It can be easily seen that the use of eucalyptus pulp would permit a large saving of power in the beater room. It should be noted that cook No. 5, which gave a test of 94 per cent at 1200 revolutions, was cooked to give an easy bleaching pulp. The color of the pulp from No. 5 was much lighter than that of No. 4 E. corynocalyx yields a pulp which tests but little better than ground wood. The pulp has a poor color and is full of dark specks.

To answer the second point, bleach consumption tests were made on the pulp from six of the cooks. The method followed was that recommended in the "Manufacture of Pulp and Paper". (Vol. III., Section 8, page 46, 2nd Ed.) Results are listed in Table I. The figures indicate the percentage of available chlorine required, based on the original, air dry weight of the pulp. The bleach consumption of the pulp from cook No. 18, the lightest colored pulp obtained from E. corynocalyx in any of the cooks, is seen to be much higher than that of the pulp from either of the other two woods. The light color of the pulp from E. globulus is a point in its favor. E. tereticornis yields a pulp having a color which, though not as light as that of E. globulus pulp, can still be considered as excellent. The E. globulus pulp is of a much lighter color than good pulp made from red cedar by the Kraft process, while the pulp of E. tereticornis is a trifle darker.

The photomicrographs (Figs. 3 to 8) were all made at a magnification of 96 diameters so that they could be compared with the photomicrographs of other eucalyptus species reproduced in "Australian Wood Fibres". (By Baker and Smith. See Bibliography.) Figures 3 and 4 are E. globulus fibres from cooks 4 and 5, respectively. The length of the fibres appears to lie between 0.8 and 1.2 mm. The short, thick ray cells are much in evidence. Figure 3 also shows two of the cells from the vessels. The ray cells and the cells from the vessels do not add strength to the pulp, but probably weaken it instead. Fortunately, the ratio of width to length is very small in the case of the tracheids and the wood fibres, thus giving the pulp good "felting" properties. Figures 5 and 6 show the fibres of E. corynocalyx to be on the average slightly shorter than those of E. globulus, but with a smaller percentage of ray cells. The fibres of E. tereticornis shown in figure 7 appear to be shorter than those of either of the other two species. As nearly as can be judged, the fibers are

[20] Paper Trade Journal, Vol. 85, p. 62 (Aug. 4, 1927). (On back side of last page of index to Vol. 84.)

TABLE II

TESTS OF BURSTING STRENGTH OF EUCALYPTUS PULP

Cook No.	Species	Process	Mullen Strength Test	
			Revs. in mill	Strength ratio
4	E. globulus	Kraft	600	91%
			1200	82
			1800	60
			2400	53
			3000	38
5	E. globulus	Sulphate E. B.	0	49
			600	75
			1200	94
			1800	67
8	E. corynocalyx	Kraft	0	18
			600	34
			1200	36

TABLE III

RESULTS OF STRENGTH TESTS MADE SINCE COMPLETION OF THE REPORT

(Tests made through the courtesy of Mr. Allen Abrams of the Marathon Paper Mills Co.)

Cook No.	Species	Mullen Test (per cent)	Tearing Strength (grams)	Tensile Strength (lbs./in.)	Folding Endurance (No. of double folds)
19	E. tereticornis	55	40	19	40
14	E. globulus	140	95	42	1200

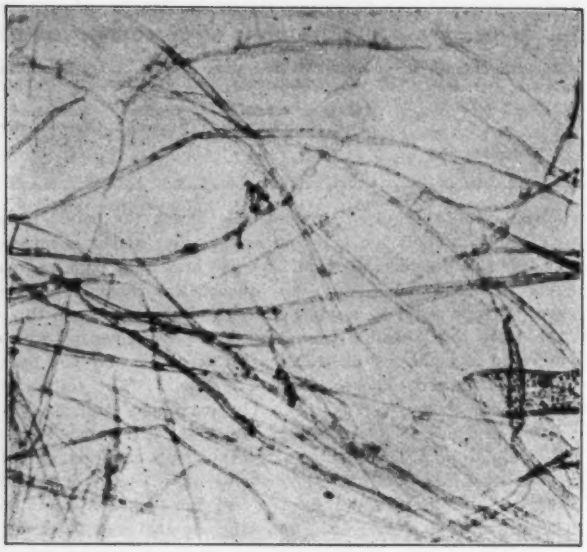

FIG. 3

Kraft pulp from E. globulus. (Blue Gum). Cook No. 4. The large, thick cells in the lower right hand corner are cells from the vessels. These and the short ray cells contribute no strength to the pulp. Magnification is 96 diameters as in all the photomicrographs in this set.

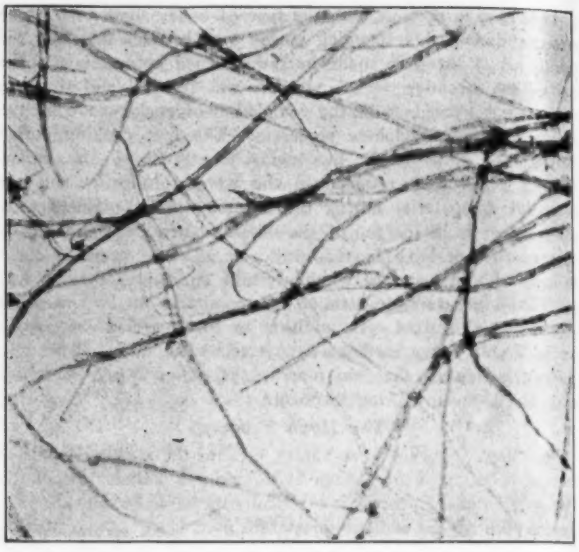

FIG. 4

Easy bleaching sulphate pulp from E. globulus, Cook No. 5. Note the abundance of the short ray cells shown in this photograph and in Fig. 3.

0.7 mm. and longer, with the tracheids, (those showing a large number of pits,) even shorter than 0.5 mm. All of the fibers are shorter than those shown in Fig. 8. These are pulp fibers from red cedar cooked by the kraft process, and are tracheids some 3 or 4 mm. in length. As would be expected from the length of the fibers, the pulp of red cedar is exceedingly strong. This photomicrograph, made to the same magnification as the others, is shown here for comparison. It can be seen that, although the fibers or red cedar are much longer than eucalyptus fibers, they are also much wider. In fact, the ration of width to length, appears to be more favorable in the case of the eucalyptus fibers.

Discussion of Results

The object of this work was to obtain data on the pulping characteristics of the three eucalyptus species planted most extensively in California. Information was particularly desired on the quality of pulp that could be obtained by some standard process other than the soda process. Because it was necessary to adandon the standard sulphate process and change to processes which have not been thoroughly tested in commercial work, the data is not as complete as it should be. The first point, however, has been covered well enough to warrant some definite conslusions.

The wood of eucalyptus globulus is very easily reduced to a light-colored pulp. Although the fibers are shorter than those from a typical conifer, an advantage is the fact that, as with the other two species tested, the ratio of length of the fibers to width is high. The pulp produced by the hypo process is a little redder than that produced by the standard sulphate process. The pulp yield is high; and the strength, developed by a remarkably short beating period, is higher than that of the best sulphite pulp. The

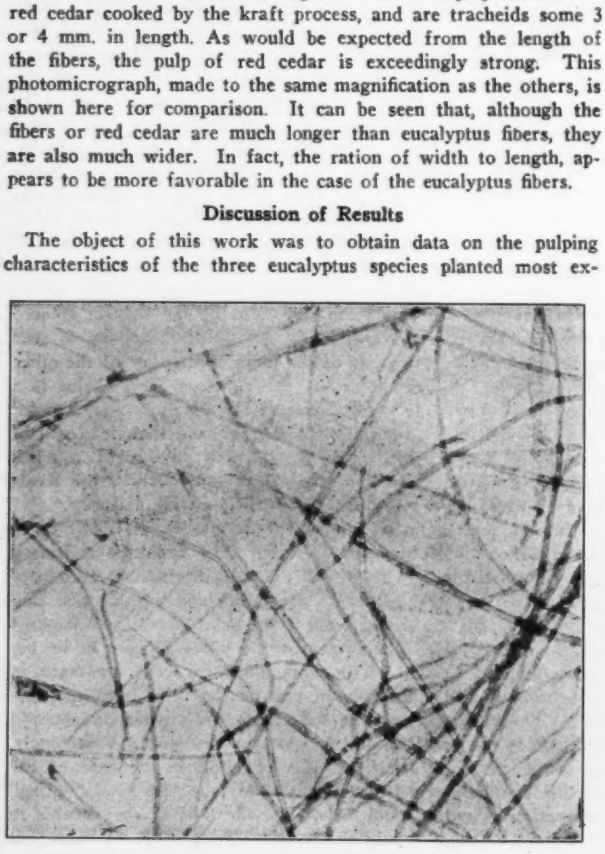

FIG. 5

Kraft pulp from E. corynocalyx, Cook No. 8. Note the smaller number of ray cells as compared with Figs. 3, 4, and 7.

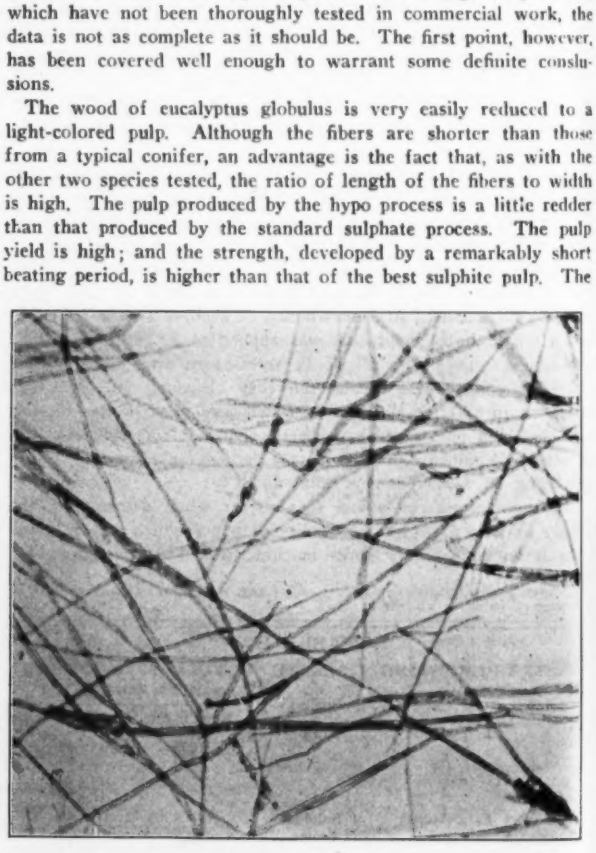

FIG. 6

Pulp made from E. corynocalyx by the Modified Soda process, Cook No. 10.

combination of light color, strength, short beating period, and high yield put eucalyptus globulus wood in a very favorable light, especially when it is remembered that this is the most extensively planted and one of the fastest growing species of eucalypts in California. That the shortness of fiber is not a serious difficulty has been demonstrated by the recent work conducted for the Institute of Science and Industry of Australia.

Slightly less favorable are the results of the work with E. tereticornis. The pulp from this wood is a little darker than the red cedar pulp and much darker than the pulp of E. globulus. The color is, however, good. Whether it would be lighter if cooked by the standard Kraft process is a difficult question to answer without experimental evidence. Judging from the photomicrographs, the strength of this pulp is close to that of E. globulus; the difference, if any, would probably favor the latter. E. tereticornis wood is easily pulped, but again not so much as E. globulus. This species of eucalyptus is about as fast growing as E. globulus or Blue Gum, and is more resistant to frost. It has been extensively planted in California. (See Bulletin 380 of the College of Agriculture at Berkeley, Cal., for details.)

Results with the wood of E. corynocalyx or sugar gum are not at all promising. The wood is not easy to reduce to pulp, and the color of the pulp obtained is poor. Photomicrographs of the fiber indicate a possibility of greater strength than with the other two species, but this is not shown by the actual strength tests made. The tree is less frost resistant than blue gum or gray gum and is not grown extensively except in Southern California.

To complete this work, a test of the strength of the pulp from *E* tereticornis should be made. Pulping tests on the wood of other species should prove of great value in the study of the eucalypts of California. E viminalis is particularly recommended. No less desirable would be large scale tests of the ability of some members of the "ash" group to grow in plantations in different parts of the state. Species which should be thoroughly investigated in this way are E. regnans, E. delagatensis, E. obliqua, E. E. pilularies, E. maculata, E. saligna, E. diversicolor, and E. Sieberiana, and E. eugenioides. Tests should also be made with dalrympleana.

Before concluding this article, the author would like to express appreciation for the assistance so obligingly given in its preparation. Especial thanks are due to Dr. Wm. N. Lacey, associate professor of Chemical Engineering at the California Institute of Technology, under whose direction the work was carried out;

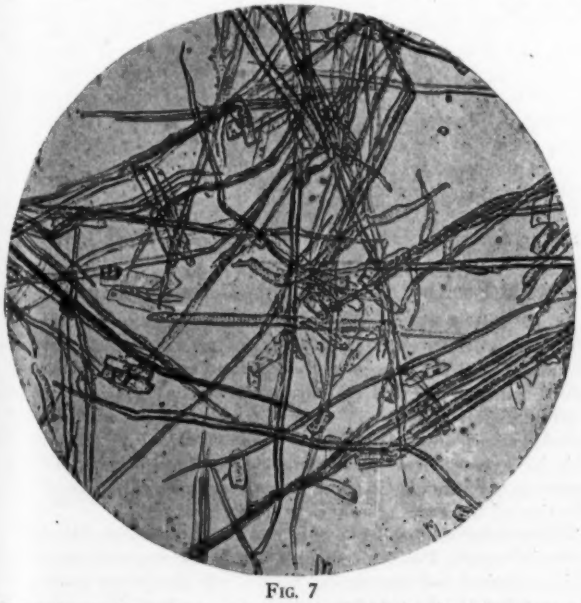

FIG. 7

E. tereticornis (Gray Gum) pulp fibers from Cook No. 19. (Hypo process.)

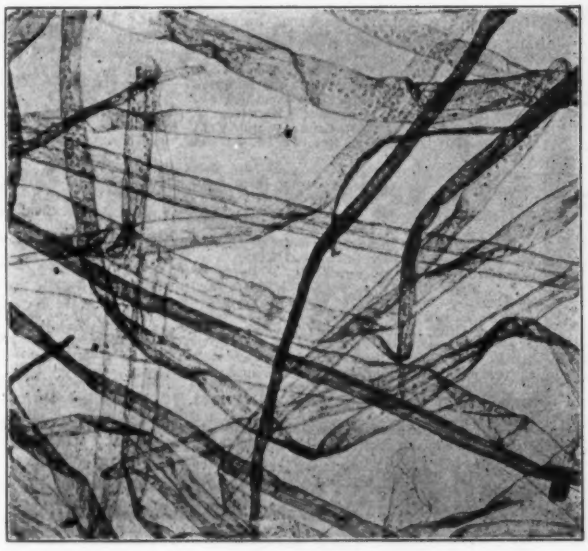

FIG. 8

Kraft pulp fibers from Red Cedar. The fibers are shown here at the same magnification as the other photographs for comparison.

and to Woodbridge Metcalf, the Extension Forester at the University of California at Berkeley. The staff of the Forest Products Laboratory at Madison, Wisconsin; the Council for Scientific and Industrial Research at Melbourne, Australia; and the Curator of the Technological Museum at Sydney, Australia, have contributed much valuable information. The Murphy Oil Company of East Whittier, California, obligingly supplied the logs of E. globulus and E. corynocalyx. The author wishes to thank also the person who carried out the strength tests on the pulp. Appreciation of the assistance of many others is expressed.

A chronological bibliography of work on the use of eucalypts for paper is included with this report. Abstracts only were available of a few of the titles. For some of them, not even abstracts could be found; and these are starred in the bibliography. The titles of several of this latter class were taken from "A Bibliography of Papermaking, 1900-1928," and from "Papermaking Materials" by C. J. West.

Summary

It may safely be said as a result of this work that the wood of the Blue Gum is entirely suitable for the manufacture of paper pulp by the sulphate or soda processes, or even by such modifications as the so-called Hypo process. The wood of E. tereticornis or Gray Gum is less desirable, but still entirely worthy of investigation. Further effort spent on pulping Sugar Gum by any of the alkaline processes would probably be wasted. Tests should be made of the possibility of pulping this wood by the standard sulphite process.

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* Copy of this article not available for preparation of this article, but title is included for completeness.

Silicate of Soda and Concrete

"Silicate of Soda and Concrete," which is the title of Bulletin No. 34 of an interesting series of literature sent out by the Philadelphia Quartz Company treats on dustproofing concrete floors among other helpful matters to pulp and paper mill men. A copy of this and other bulletins in the series may be had on application to the Philadelphia Quartz Company, 121 South Third street, Philadelphia, Pa.

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The following are new members of the Technical Association of the Pulp and Paper industry.

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H. N. Booker, vice-president and general manager, Hermann Manufacturing Company, Lancaster, Ohio.

C. M. Bryan, general superintendent and production manager, Strathmore Paper Company, Mittineague, Mass.

H. A. Des Marais, technical representative, Paper Department, General Dyestuffs Corporation, Boston, Mass.

G. J. Fink, director of research, National Aluminate Corporation, 6216 West 66th Place, Chicago, Ill.

W. F. Hathaway, assistant chemist, Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich.

P. P. Hilton, sales engineer, Johns-Manville Company, 292 Madison Avenue, New York, N. Y.

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E. H. Nunn, chemist, British Columbia Pulp & Paper Company, Woodfibre, B. C.

Ivan Rehn, chief engineer, A. B. Karlstads Mekaniska Werkstad, Karlstad, Sweden.

S. E. Thompson, president, Thompson & Lichtner Company, Statler Building, Boston, Mass.

T. W. Toovey, junior mill chemist, British Columbia Pulp & Paper Company, Port Alice, B. C.

Dictionary of Paper Converting Terms

Lexikon der Papierverarbeitung. Dr.-Ing. Heinrich Biagosch. Verlag der Papier-Zeitung, Berlin, S. W. 11.

This dictionary is to be in two volumes, of which volume two is issued first. It is being issued as a supplement to Papier-Zeitung, as "Beilage, Ausgabe B." The first installment of 64 pages appeared April 1, 1929; succeeding numbers will appear monthly until the work is completed. It is expected that the two volumes will make about 1400 pages, or about 22 numbers of 64 pages each. Each part sells for 2.50 gold marks.

As the title implies, it is a dictionary arrangement of all the terms met with in the conversion of paper and boards into their many products. The first number covers the terms from "Abbiegen" to Aufkleben." Liberal use is made of cross references. The use of illustrations further enhances the value of the definitions. Many of the definitions are in reality rather full expositions of the processes involved; *e. g.*, the expression "Aufkleben" (pasting) occupies eight pages.

It would seem that, to one who is acquainted with the German language, this work should be of real value.—CLARENCE J. WEST.

To Be Known as Virginia Cellulose Dept.

As of July 1, this year, the Hercules Powder Company of Wilmington, Del., succeeds to the assets and business of the Virginia Cellulose Company, Incorporated, a subsidiary wholly owned by Hercules Powder Company since July 1, 1926, and which is to be dissolved, and will carry out the contracts and perform the obligations of the Virginia Cellulose Company, Incorporated. This business taken over by Hercules Powder Company will be known as the Virginia Cellulose Department and will be under the direction of the same personnel as heretofore.

This arrangement will not only unify and coordinate the business of Hercules Powder Company but, by the grouping together of its technical and engineering forces, will also better qualify it to serve directly the industry.

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Edited by
THOS. J. BURKE, C. A., Sec.-Treas.

Inspecting the Works of the Sherman Act*

By James Harvey Williams[1]

The voice of both production and distribution has been raised quite generally of late in protest against the "pro-trust" interpretations which for some years past have governed the administration of our so-called anti-trust laws. By defining the Sherman Act phrase "restraint of trade" to mean that any agreement or collusion between any two or more parties as to price, limitation of production, or apportionment of territory, is illegal, these interpretations force many independent units to combine their financial resources as a self-protective measure, and thereby, gradually or immediately, to attain or approach the status of the trust, which is clearly inhibited by the anti-trust part of the Sherman Act. These interpretations apparently ignore the partial relief implied by the Clayton Act phrase limiting a number of its prohibitions to acts which only "substantially lessen competition."

This voice has run the gamut of suggestion from such relaxation of these interpretations as would permit independent units to protect themselves against the pending danger of forced mergers which tend toward semi-monopoly, all the way to open advocacy (largely in investment banking circles) of permitting units to acquire by merger that maximum efficiency that is loosely ascribed only to "trusts"—or "semi-monopoly" as it is called today.

So varied indeed have been these suggestions that it has become obvious that analysis of the underlying economics of the subject must precede any successful solution. For who can successfully gainsay the fact that determination of the proper solution is essentially an economic question, and not in any sense a legal one? This, notwithstanding the likewise unquestionable fact that after that solution shall be found, its enactment into the law of the land will become chiefly a matter of practical politics.

Upon this theory, then, as a first step, let us attempt to throw light upon the subject by taking down the works of the Sherman Act to see what it is that keeps it from ticking, regardless of the respect due to the senility of some of these works, it is only by examination of them all that we can be certain to locate the parts that are defective; that we can determine intelligently whether this product should be repaired or replaced, or whether the public should be told that it is a 1929 model and can therefore be used safely and profitably for some years to come.

What Is Going On in the Mind of Congress

At the risk of duplicating statements made in a formal report to be presented later in this discussion, let us imagine for a moment what must be going on in the minds of the Congress and the Judiciary of these United States and see what we find:

We find, first of all, that we manufactured this product some 38 years ago, and reference to our records reveals that our Judiciary Department has been repairing it ever since with much interruption of their regular production. While the expense to us has been great, it is as nothing compared with the expense, the irritation, and the uncertainty of performance that has been caused to our corporate customers, the greatest contributors to our revenue, potential, if not actual.

We find, furthermore, that while in some respects it has fulfilled our guarantee, in other respects it has fallen down badly to the great injury of our reputation. We put this out originally as a real honest-to-goodness, anti-trust law, and for a while when it was new we had no great amount of complaint. Our customers recognized its heavy-duty requirements, and the necessity for some radical change in the previous model, known as The Common Law, which had been taken over by us in 1792 and which by 1890, having lasted for some centuries of rapid social change, obviously needed reinforcement.

The Model 1890, therefore, has some heavy-duty accomplishments to its credit: it did succeed for many years in breaking up the "semi-monopolies," or "trusts" as we used to call them, and more than that, it broke up the most oppressive of the unfair methods that were being freely used by "the trusts" to insure the preservation, or aid the attainment, of their status as trusts.

But even this model soon began to give way under the constantly increasing loads of progress, and frequent repairs have utterly failed to stem the tide of almost universal sales resistance. For instance, in 1914 we reinforced its service with a junior partner, the Clayton Act, which first enunciated, and since then has enforced, the details of our anti-trust policy, and in the same year in the effort to extend its radius and clarify prevailing doubts, we brought out its associate, the Federal Trade Commission Act, which worked out the policy as well as the enforcement of our "Unfair Trade Practice" department.

When first suggested to us by President Wilson, this was a likeable young tool, and we expected it to be very successful in guiding and helping our best customers in the use of the produce. But it had not been with us a year before it began to think it was the senior partner and that its chief function was to annoy and criticize these customers even to the point of bringing ill-founded charges against them, which only added to our sales resistance.

Nor was this all. One of our very best customers, a fellow named Steel, was threatened some years ago with a severe case of

*Magazine of Business.
[1] President of J. H. Williams & Co.

dissolution. We thought the circumstances warranted an application of our recent invention "the rule of reason." So we tried it on in varying doses. For a while this worked very well, and greatly encouraged all our other customers until in 1926, going up a tortuous road on Trenton Potteries Hill, this solution all ran out and did enormous damage with the result that confidence in our product among its users has nearly collapsed.

Shock of the War

But even this is not the worst of it, we might find Congress and the Judiciary thinking. Nor is it the fact that we had had to admit to the shipping, banking, farming, labor, railroad, and export interests that our model could not satisfy their needs, and to discontinue all efforts to get them to use it. The rudest shock came after the war, when so many of our customers found themselves over-equipped. It seems that in our zeal to protect the public, by eliminating the trusts, we had ruled that any collusion between two or more rivals in any one line as to price, production, or territory would "restrain trade" in the sense of tending to foster monopoly and thereby to oppress the public.

We had been told by our customers' customers that they did not want that, and they were very insistent. So we had to adapt the model to please them, and we thought we had done so. But under these postwar conditions our customers, having more supply than demand, began to experience what they called "profitless prosperity." That is to say, they had a pretty good volume of business but not enough, mark you, to fill all this capacity. So, to get more business they all began to reduce their prices, with the result that pretty soon all their business was at these reduced prices. Of course they could make no progress, for they were all pushing each other off the road, and many stalled completely.

As we had ruled that information concerning the only means of correction was not interchangeable, our customers as a practical matter either had to violate our instructions or stay in the ditch. Some did one, some the other, and a few got out by themselves, but with great loss of power. And right here came that "unkindest cut of all"—some of those who had gotten out extended a tow-line to pull others out, only to find upon emerging that they were permanently stuck together. Some of those still in the ditch, in trying to help themselves and each other, have also permanently stuck together. Some of the "stuck together" groups have themselves gotten "stuck together" with other similar groups and have monopolized about half the road or the ditch, as the case may be, and are threatening to impede traffic further. So altogether, without realizing it, our kindly intended anti-trust actions for protection of the independent units have become in reality "protrust," and we can not longer deny the fact.

At any rate, we are forced to the conclusion, very reluctantly you may be sure, that our present design is utterly obsolete, and that we must scrap all of the old model except the frame—which is wholly anti-trust, and as such will wear indefinitely. Otherwise our customers will lose all confidence in our ability to keep pace with the demands of progress.

Some Significant Paragraphs

Why? well, let us refer to 11 paragraphs from a report which might have been submitted to us by our "Congressional Bureau of Economic Research"—if any such body were provided by the people to guide us in our legislative relations with business. These significant paragraphs follow:

I

"The so-called Sherman Anti-trust Law was passed in July, 1890, upon the recommendation of President Harrison as the answer of Congress to the popular insistence that the growing monopolistic tendencies of Big Business be immediately and drastically checked, and that the oppressive methods then in vogue for accomplishing that purpose be outlawed forever. These methods were not only reprehensible in themselves, but had the effect of using sheer weight of capital as a weapon with which to ruin less powerful competitors, and thereby to eliminate or absorb them. We can find no purpose in the recommendations of President Harrison, in the Congressional debates, or in the public temper of the times other than these wholly beneficient ones. Our inevitable conclusion, therefore, is that there was no other purpose.

II

"We do find, however, that the general terms of the Sherman Act were in some respects not sufficiently specific to prevent the continuance of milder forms of these general abuses, as to which contravention of the Sherman Act was found to be doubtful. For this reason chiefly, it appears, the Clayton and Federal Trade Commission Acts were enacted in 1914. These acts inhibited a number of specific methods of concentrating capital in the hands of the few, of restraining trade, and of practicing unfair and anti-social means of throttling competition, or of imposing upon customers.

"These, and none other, were the subject of President Wilson's energizing message to the Congress of January 20, 1914, which requested the enactment of these laws. His message fairly teemed with the spirit of anti-monopoly and of the resultant need for preservation of sufficient independent units to protect the public against oppression. In this respect we are unable to notice any difference from the purposes of 1890 save a desire to protect, aid, and clarify for the benefit of legitimate business the precise distinction between lawful and unlawful practice, and possibly to soften some of the previous rigid interpretations of the Sherman Act phrase restraint of trade by confining its application to those cases which 'substantially' (and not necessarily remotely) lessen competition.

III

"In accomplishing the particular purpose of curbing the growth of monopoly in industry and distribution, and of lessening the prevalence of 'unfair trade practices' practically to the point of total elimination, we find that these laws have been extremely effective, and altogether in accord with an overwhelming degree of public sentiment.

IV

"There is, however, one phase of these anti-trust laws as to which our investigation reveals a condition far less susceptible to economic commendation, or, in fact, to the acceptance of that portion of the public which is familiar with its workings. We refer, not without considerable embarrassment, to some of the interpretations which have been read into these laws by the learned gentlemen of the Judiciary, without apparent warrant of any authority that we can find, save possibly the public hysteria and confusion of sequence that appear to have existed at the time the Sherman Act was enacted, as a result, of course, of the abuses mentioned. This hysteria we find was to some extent revived during the administration of President Roosevelt when it was discovered by the public that the Sherman Act had not been sufficiently enforced, to prevent the renewed menace of the so-called trusts.

"It seems that almost unnoticed, because of this lack of enforcement, the Judiciary had interpreted the public mind to mean that all those practices previously indulged in by these 'octipi', were equally abhorrent when practiced by, let us say the man in the street,' as befits perhaps the independent producer or distributor. Wishing to give him the benefit of the doubt, courtesy required that we refrain from calling him 'the man in the gutter.' But that is beside the point.

"What did happen, to state it precisely, was that the Judiciary had interpreted the Sherman Act phrase 'restraint of trade' to mean that any agreement between any two parties relating to the making of any price, the limitation of production, or the apportionment of territory was within the meaning of that phrase. At first it was thought that it was to apply only as between competitors (which is its most important and most injurious, phase)

but our investigation shows that it even applies down the line throughout the processes of distribution. Thus a manufacturer, even though his product be trade-marked and advertised to the consumer as worth a certain fixed price, may not enforce the maintenance of that price by those to whom he sells for the purpose of ultimate distribution to the consumer.

"The revelation of all these facts has given us considerable concern, for in all our investigation we can find but little industrial approval of these theories, except among department stores, chain stores, and other beneficiaries of the hardships they impose upon the manufacturer, jobbers, and retailer in the long established lines of distribution.

V

"As a result of this finding we have felt impelled to search deeply for substantiation of these interpretations. Candor requires us to say that there is none, at least so far as we can find out. Nowhere in the Sherman Act itself, in the debates which preceded its enactment, in economic law, in economic fact, in the experience of our business community, or indeed in the experience of any other country in the civilized world, have we been able to find authority for these interpretations. We, therefore, find no escape from the conclusion that none exists, or has ever existed, save in a public hysteria which sometimes punishes the innocent with the guilty.

VI

"We further find that with the adoption of this theory as the law of the land it is natural that it should have permeated all departments of our government upon the theory that 'the government can do no wrong.' From the government it has likewise been promulgated to the public with all the authority that respect for government commands.

"The public at large is unaware of the contrary practice of every other country in the world. They little know that by this doctrine they are actually promoting 'trusts', or the concentration of capital in the hands of the few. Or that they are promoting that 'profitless prosperity' that results from cut-throat price competition to efficient and inefficient alike, differing only in degree. They little realize that it is because of this 'profitless prosperity', largely, that many of these mergers are forced, and that it is only a question of time at the present rate of growth of the merger movement before industry will be back again in the control of the few.

"The bankers, controlling the investment banking fraternity, will not tell them. Why should they? The plight of industry, together with the peculiar and spectacular example of a few outstanding large scale industries affected in the main with the unusual conditions of newness or of universal demand, has furnished the reason for many of the consolidations of the horizontal or competitive type.

VII

"Government and public alike, we find, thrill to the constant repetition of the magic phrase 'the competitive principle' to which we in America are unquestionably committed. But the agencies of government do not seem to understand, much less tell the public, that *'the principle of competition' promulgated by Congress in reflection of the will of the people, was simply the insistence that monopoly and semi-monopoly shall be outlawed from American industry, that independent units shall exist free of common industrial or banking control to insure the protection of the public against exorbitant prices and other forms of oppression—and not at all that separate units should not protect themselves by concerted action to the extent that their independent status may be assured in case some of the group, the least efficient usually should wish to contribute their last full measure of possible earnings to the grasping representatives of the consuming public.*

"The truth of this matter should in all fairness be not only admitted but spread abroad by the government. This has not been done.

VIII

"One result of these interpretations as they affect the relations of competitors has been to prevent the sellers from having the same opportunity to protect themselves that is given to the buyers of their product. This is the chief cause of that 'profitless prosperity' to which so many industries have recently been subjected by reason of the fact that independent producers have been greatly handicapped in obtaining a fair price for their products, especially in times when supply exceeds demand.

"More intensive analysis of cost factors in the effort to reduce costs to the minimum, together with the conspicuous expansion of several exceptional and relatively new industries have educated many managements to look to an ever-increasing volume as their only remedy. This volume, if it can be obtained, is taken either from other members of the industry, or from other industries competing likewise for the purchaser's dollar. Instalment selling has even extended this to his future dollar, such has been the ferocity of his competition.

"On the way from manufacturer to ultimate consumer *the purchasing agency which has to sell the consumer immediately uses these competitive necessities, together with the prevailing excess of supply, to force prices and terms down to a basis that is unprofitable even for the most efficient units.* The larger buyers in the industries which offer attractive volume, for example, insist upon the use of their own one-sided type of contract, by which the seller is obligated to definite prices and terms but the buyer only to optional terms of his own making. Fair play must work both ways, for it cannot profit a unit to lose its trade and save its money, if an aggressive competitor is willing to pay for creating in the customer's mind the impression of 'efficency' by exchanging dollars for fractions thereof. *We therefore recommend that use of this type of contract be made an 'unfair trade practice,' unless the law is changed to allow sellers to protect their negotiating power through organization in the same manner that is permitted to buyers.*

"It may be truly said that as 1928 closed, supply and demand were coming nearer together, than for some time past, that many industries are now prosperous, that unemployment is greatly reduced and that values have so increased (whether really or artificially remains yet to be determined) as to bring prosperity to the country at large as individuals. But it can hardly be said that the country is so prosperous that the need for legislative relief can safely be side-tracked when we still have vividly before us the extremely unsatisfactory conditions of such outstanding major industries as oil, coal, textiles, and agriculture, all of which are recognized as problems involving limitation of production which obviously can be effected only through voluntary agreements embodying mutual concessions thoroughly contrary to these interpretations of the law.

"If further instances were needed it would only be necessary to cite the basic steel industry which in 1927 earned but 5.1% upon its billions of invested capital (barely the interest on a bond without any risk of principal), a rate officially attributed to inability to secure fair prices in the face of the selfish pursuit of volume; the vast railway-supply industries; and many others of smaller consequence as illustrated by the statistics of the Bureau of Internal Revenue, all of which are due either to price or production maladjustments.

IX

"The second result of these interpretations—the increasing merger movement—follows naturally from this first one. If it is illegal for competitors to agree on these things as independents surely no law can say them nay if they combine their resources in one organization. If enough units do this to resolve the industry into two or three dominating aggregations of capital the 'situation' is 'stabilized' and this is preferable to 'profitless prosperity.' Thus we come back to semi-monopoly, which if it differs from the 'trust' of 1890 does so only in respect to following a higher standard of business conduct, born of enlightened instead of ruthless selfishness, and of deference to public opinion as well.

"Of course, we should not fail to add that many of the mergers

of today are 'distribution' mergers, effected for the purpose of reducing the prorata sales expense chargeable to the separate lines of product formerly sold independently. This, like the chain-store movement, is a separate economic problem with which a report upon the workings of the Sherman law is scarcely concerned.

X

"We find, too, that to make the Sherman Act workable, it has been necessary for Congress to grant exemption from its provisions to a number of classes of interest. Therefore, labor, farmers, steamship lines, railroad corporations owning water lines, operators of an exclusively export business, and national banks in respect to their foreign operations, today constitute a privileged class. Other powerful industries, harassed by this law, are seeking a similar privilege, but only those of sufficient size to be noticed or to have acquired a sufficient political appeal can hope to obtain it. Yet those industries which need it most are the many independent producers of products essential to and purchased by the larger and more basic industries whose consequent larger units are therefore fewer, and thus constitute a concentration of buying power which only adds to the difficulty of their more scattered suppliers. This class, in the aggregate largest of all, as well as neediest, should be given protection at least equal to that given by Congress to those industries whose need for exemption is merely more conspicuous.

XI

"There is another phase of the matter that is by no means the least of the reasons why a new law is needed. This is the moral phase. On a smaller scale, because affecting fewer individuals, the situation is not unlike that surrounding the administration of the Volstead Act. In its judicial interpretations intended to change the natural consequence of mere intercourse as between competitors, it is literally unenforceable. It creates at the same time, that sense of mistaken injustice that must result from any man-made law which runs counter to human nature and common sense without the extenuating support of morality, true public interest, or (in a question of this sort) economic law. In this respect, it not unnaturally creates in the minds of those who understand the workings of this law, a certain disrespect for the law itself. This disrespect is in no way lessened by the public knowledge that on many occasions the government itself has found it necessary to disregard this law to bring about results it considered necessary in the public interest!"

These, therefore, are the conclusions derived from the investigation and study of our imaginary "Congressional Bureau of Economic Research"—which Bureau incidentally should be an existing fact rather than a distant hope. It only remains to state that this "Bureau" has encountered several schools of thought which disagree with the need for change, and to summarize and answer them forthwith.

Visit Seybold Machine Co.'s Plant

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, June 25, 1929.—The Seybold Machine Company's plant was visited in a body by the delegates to the Ohio-Michigan Printing House Craftsmen who attended the annual convention in this city last week.

Every feature of color offset press manufacturing and the making of cutting machines used in paper and publishing plants, was observed, the visitors being escorted through the various departments from the beginning of manufacture to the finishing point. The delegates remained at the plant as guests of the company for luncheon, after which they returned to the Miami hotel to take up the discussion of practical subjects.

Louis Flader, commissioner of the American Photo-Engravers' Association, and others delivered addresses. A banquet and dance was given in the ball room at night, bringing the convention to a close. Judge Roland Baggott was the principal dinner speaker, his subject being "Keeping Abreast of the Times."

During the afternoon the women attended a matinee performance of "Lilac Time" at the Victory theater.

Wisconsin Cost Men To Meet

A meeting of the Wisconsin Local Division of the Cost Association of the Paper Industry, will be held at Essex Lodge, at Clear Lake, Tomahawk, Wis., on Friday, June 28.

In view of the importance of the subject and the very successful outcome of the last meeting, it was decided to again ask C. M. Baker, engineer of the American Paper and Pulp Association to be the principal speaker, on the subject of "shrinkage", so that many of the points raised at that meeting could be further discussed.

It is intended that those attending shall bring their wives or lady friends, who will have plenty of opportunity of enjoying themselves while the members are attending the session. It is especially hoped that as many as possible from the mills in Wisconsin or other states will take advantage of the opportunity to attend this meeting, whether members of the Cost Association or not.

Full details can be obtained from the secretary-treasurer of the Wisconsin Local Division, Miss I. M. Carney, care of Tomahawk Kraft Paper Company, Tomahawk, Wis.

The program will start after luncheon, with golf on the sporty nine hole golf course adjoining Essex Lodge. Dinner will be served at six o'clock sharp, following which address will be given by C. M. Baker, on "Shrinkage", and undoubtedly another lively discussion will ensue.

A program of cards will be arranged for the ladies attending, during the meeting. It is expected that the meeting will be over promptly at ten o'clock, following which, a dance will be held.

Make your reservations early and come prepared for a really enjoyable and worth while meeting and outing.

Kalbfleisch Corp. Reorganizes

A reorganization of the Kalbfleisch Corporation with American Cyanamid Company through the consolidation of the assets of the Kalbfleisch Corporation with the assets of American Cyanamid Company has been approved by the boards of directors of both corporations, subject to confirmation by the stockholders of the respective companies. The Kalbfleisch Corporation will continue to operate as a separate organization and no change in the management is contemplated.

American Cyanamid Company is a large manufacturer of mining and industrial chemicals and fertilizer materials, including cyanides, cyanamid, sulphuric and phosphoric acid, ammonia, prussiates, etc., with plants in the United States, Canada and Spain. The Kalbfleisch Corporation manufactures chemicals for paper making, textiles and other purposes at its six plants in the United States, and has ore mines and plant in Dutch Guiana, South America.

The two companies use some of the same basic materials in their operations and this reorganization will create advantages through consolidation of plant facilities, research and technical developments.

The One Hundredth Anniversary of "Kalbfleisch" in the chemical industry was celebrated in March, 1929.

A. E. H. Fair Goes With Alliance Mills

A. E. H. Fair has left the employ of Arthur D. Little, Inc. and has resigned from the vice-presidency of the Windsor Locks Mills Inc. to take charge of the fine paper production of Alliance Paper Mills Ltd., Merriton, Ontario.

Mr. Fair has devoted the past several years to the development and production of specialty papers. In addition to this his work with Arthur D. Little, Inc., has involved both the research and manufacture of highly technical grades. His friends and co-workers in the United States exceedingly regret his decision to return to Canada but the opportunity in his new connection so overshadows this thought that they can only wish him success and happiness.

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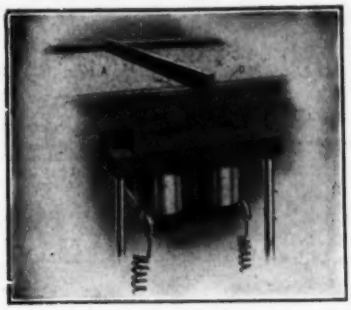

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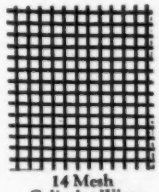

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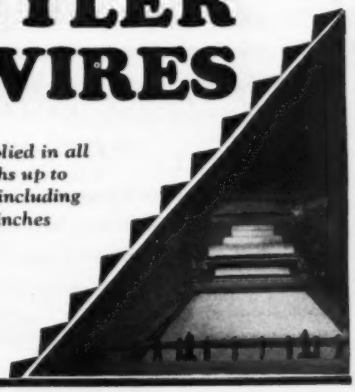

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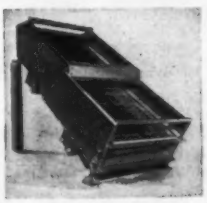

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Printing paper .....156 rolls, 156 cs.
Wrapping paper .....61 bls., 48 cs.
Packing paper .....330 rolls, 37 cs.
Filter paper .....20 bls., 27 cs.
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Gallic paper .....2 cs.
Cover paper .....5 cs.
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Coated paper .....3 cs.
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Aluminum paper .....9 cs.
Tissue paper .....107 cs.
Writing paper .....20 cs.
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W. H. S. Lloyd & Co., Samaria, Liverpool, 1 cs.
American Express Co., Rochambeau, Havre, 5 cs., 4 bls.
W. H. S. Lloyd & Co., Minnetonka, London, 2 bls., 4 cs.
W. H. S. Lloyd & Co., Ile de France, Havre, 3 cs.
W. H. S. Lloyd & Co., Cedric, Liverpool, 3 cs.
Whiting & Patterson Co., Inc., Majestic, Southampton, 3 cs.

NEWS PRINT

Hudson Trading Co., Gonzenheim, Wifstavarf, 188 rolls.
Parsons & Whittemore, Inc., Stuttgart, Bremen, 506 rolls.
Perkins Goodwin & Co., St. Louis, Hamburg, 446 rolls.

PRINTING PAPER

International Forwarding Co., N. Amsterdam, Rotterdam, 8 cs.
C. Steiner, N. Amsterdam, Rotterdam, 6 cs.
Gallagher & Ascher, G. Washington, Bremen, 13 cs.
P. C. Zuhlke, Stuttgart, Bremen, 4 cs.
C. A. Redden & Co., Minnetonka, London, 16 rolls.
E. Dietzgen & Co., St. Louis, Hamburg, 59 cs.
Armour & Co., Thuringia, Hamburg, 78 rolls.
Rostigraph Co., Pipestone County, Havre, 75 cs.
Keuffel & Esser Co., Reliance, Hamburg, 71 rolls.

WRAPPING PAPER

T. Barrett & Son, Gripsholm, Gothenburg, 61 bls.
Steffens Jones Co., Pennland, Antwerp, 20 cs.
Birn & Wachenheim, Pennland, Antwerp, 28 cs.

PACKING PAPER

American Express Co., St. Louis, Hamburg, 330 rolls, 20 cs.
American Express Co., Reliance, Hamburg, 17 cs.

FILTER PAPER

H. Reeve Angel & Co., Inc., Caronia, London, 9 cs.
C. Schleicher Schull Co., St. Louis, Hamburg, 17 cs.
A. Giese & Son, Majestic, Southampton, 20 bls.
A. Giese & Son, Thuringia, Hamburg, 1 cs.

DRAWING PAPER

H. Reeve Angel & Co., Inc., Caronia, London, 1 cs.
Keuffel & Esser Co., Reliance, Hamburg, 13 rolls, 58 cs.

GALLIC PAPER

Keuffel & Esser Co., Caronia, London, 2 cs.

COVER PAPER

International Forwarding Co., Reliance, Hamburg, 5 cs.

BARYTA COATED PAPER

Globe Shipping Co., G. Washington, Bremen, 69 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Stuttgart, Bremen, 59 cs.
Gevaert Co. of America, Pennland, Antwerp, 74 cs.
International Forwarding Co., St. Louis, Hamburg, 2 cs.

COATED PAPER

Pacific National Bank, St. Louis, Hamburg, 3 cs.

PHOTO PAPER

Herbert & Huesger Co., Minnetonka, London, 2 cs.

COLORED PAPER

P. H. Petry & Co., G. Washington, Bremen, 2 cs.

DECALCOMANIA PAPER

C. W. Sellers, G. Washington, Bremen, 4 cs.
L. A. Consmiller, G. Washington, Bremen, 4 cs.
L. A. Consmiller, Stuttgart, Bremen, 20 cs.
C. W. Sellers, Stuttgart, Bremen, 2 cs.
C. W. Sellers, Reliance, Hamburg, 26 cs.
L. A. Consmiller, Reliance, Hamburg, 25 cs.
B. F. Drakenfeld & Co., Cedric, Liverpool, 25 cs. (duplex).
B. F. Drakenfeld & Co., Cedric, Liverpool, 26 cs. (simplex).

ALUMINUM PAPER

Catty Foil Co., Stuttgart, Bremen, 9 cs.

TISSUE PAPER

Old Master Paper & Pulp Co., St. Louis, Hamburg, 55 cs.
Old Master Paper & Pulp Co., Reliance, Hamburg, 52 cs.

WRITING PAPER

Walker, Goulard, Plehn Co., N. Amsterdam, Rotterdam, 8 cs.
Japan Paper Co., Aquitania, Southampton, 6 cs.
The Eleto Co., St. Louis, Hamburg, 1 cs.
The Eleto Co., Reliance, Hamburg, 1 cs.
The Eleto Co., Ile de France, Havre, 3 cs.
A. Morel, Ile de France, Havre, 1 cs.

FANCY PAPER

Hensel, Bruckman & Lorbacher, Ile de France, Havre, 2 cs.

TRANSPARENT GREASEPROOF PAPER

Central Union Trust Co., St. Louis, Hamburg, 37 cs.

STENCIL PAPER AND INK

Arlac Dry Stencil Co., St. Louis, Hamburg, 65 cs.

STRAW BOARD

C. H. Powell, N. Amsterdam, Rotterdam, 149 rolls.

MISCELLANEOUS PAPER

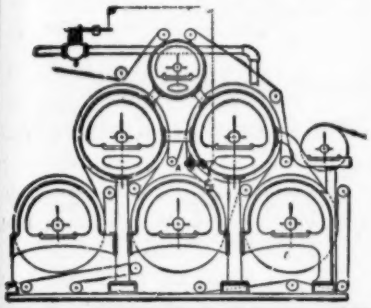
Keuffel & Esser Co., N. Amsterdam, Rotterdam, 18 cs.
Heemsoth, Basse & Co., N. Amsterdam, Rotterdam, 55 bls.
F. C. Strype, N. Amsterdam, Rotterdam, 10 cs.
J. E. Anderson, Gripsholm, Gothenburg, 3 cs.
C. K. MacAlpine & Co., Gripsholm, Gothenburg, 252 bls.
E. H. Sargent & Co., Gripsholm, Gothenburg, 17 cs.
Steffens Jones Co., Toba Maru, Yokohama, 4 cs.
Standard Products Corp., Rochambeau, Havre, 63 cs.
American Express Co., St. Louis, Hamburg, 2 cs.
Keller Dorian Paper Co., Ile de France, Havre, 21 cs.
Japan Paper Co., Ile de France, Havre, 9 cs.
Moubigant, Inc., Ile de France, Havre, 1 cs.
Independent Forwarding Co., Ile de France, Havre, 9 cs.
Rohner, Gehrig & Co., Thuringia, Hamburg, 5 cs.

RAGS, BAGGINGS, ETC.

Interstate Trust Co., Mindoro, Alexandria, 90 bls. rags.
Goldman, Sachs & Co., Mindoro, Alexandria, 50 bls. rags.
Jaffe Products Co., Sud Uruguayo, Havana, 27 bls. rags.
Castle & Overton, Inc., Sac City, Rotterdam, 198 bls. rags.
E. J. Keller Co., Inc., Sac City, ——, 90 bls. rags.
Guaranty Trust Co., Cabo Villano, Genoa, 162 bls. rags.
Guaranty Trust Co., Cabo Villano, Leghorn, 157 bls. rags.
Banco Com'l Italiane Trust Co., Cabo Villano, Naples, 187 bls. bagging.
Guaranty Trust Co., Cabo Villano, Naples, 314 bls. rags.
Guaranty Trust Co., Cabo Villano, Palermo, 71 bls. bagging.
Guaranty Trust Co., Cabo Villano, Palermo, 80 bls. waste paper.
Guaranty Trust Co., Tergestea, Bari, 398 bls. rags.
Castle & Overton, Inc., Caronia, London, 47 bls. rags.
Castle & Overton, Inc., Samaria, Liverpool, 138 bls. flax waste.
Darmstadt, Scott & Courtney, Toba Maru, Osaka, 85 bls. rags.
Brown Bros. & Co., Transylvania, Glasgow, 50 bls. bagging.
Brown Bros. & Co., Transylvania, Glasgow, 50 bls. paper stock.
Brown Bros. & Co., Transylvania, Glasgow, 80 bls. waste paper.
A. H. Searle, Transylvania, Glasgow, 48 bls. paper stock.
Castle & Overton, Inc., Transylvania, Glasgow, 135 bls. rags.
C. R. Spence, Transylvania, Glasgow, 48 bls. rags.
Darmstadt, Scott & Courtney, Transylvania, Glasgow, 20 bls. paper stock.
A. W. Fenton, Inc., Transylvania, Glasgow, 41 bls. bagging.
American Express Co., Transylvania, Glasgow, 30 bls. rags.
Castle & Overton, Inc., St. Louis, Hamburg, 12 bls. rags.
V. Galaup, St. Louis, Hamburg, 3 bls. rags.
Amtorg Trading Co., St. Louis, Hamburg, 130 bls. rags.
G. Mathes, Orizaba, Havana, 72 bls. rags.
Equitable Trust Co., Hellig Olav, Copenhagen, 253 bls. rags.
Royal Manfg. Co., Minnesota, Havre, 146 bls. cotton waste.
Guaranty Trust Co., Minnesota, Havre, 120 bls. rags.
Equitable Trust Co., Minnesota, Havre, 145 bls. rags.
Castle & Overton, Inc., Minnesota, Havre, 105 bls. bagging.
Castle & Overton, Inc., Minnesota, Havre, 25 bls. rags.
J. Cohen Son & Co., Sarcoxie, Havre, 46 bls. rags.
Katzenstein & Keene, Inc., Sarcoxie, Havre, 50 bls. bagging.
Katzenstein & Keene, Inc., Sarcoxie, Havre, 265 bls. rags.
American Express Co., Sarcoxie, Havre, 20 bls rags.
B. D. Kaplan, Sarcoxie, Havre, 12 bls. rags.
Anglo South American Trust Co., Sarcoxie, Havre, 44 bls. rags.
D. I. Murphy, Sarcoxie, Havre, 371 bls. rags.
D. I. Murphy, Sarcoxie, Havre, 115 bls. bagging.
Katzenstein & Keene, Inc., Sarcoxie, Dunkirk, 436 bls. rags.
D. I. Murphy, Sarcoxie, Dunkirk, 8 bls. rags.
A. W. Fenton, Inc., Sarcoxie, Dunkirk, 22 bls. rags.
W. Steck & Co., Pipestone County, Dunkirk, 87 bls. jute waste.
E. J. Keller Co., Inc., Maria, ——, 44 bls. linen threads.
E. J. Keller Co., Inc., Maria, ——, 113 bls. rags.
E. J. Keller Co., Inc., Examiner, ——, 123 bls. rags.
Castle & Overton, Inc., Examiner, Spain, 3 bls. rags.
Castle & Overton, Inc., Examiner, Spain, 63 bls. bagging.
Castle & Overton, Inc., Pipestone County, Havre, 100 bls. bagging.

(Continued on page 68)

The Pickles Drying Regulator



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WIRES

EASTWOOD WIRE CORPORATION, BELLEVILLE N.J. U.S.A.

Imports of Paper and Paper Stock

(Continued from page 66)

V. E. Seyen, Pipestone County, Havre, 35 bls. cotton waste.
Cohen & Son, Pipestone County, Havre, 56 bls. rags.
B. D. Kaplan, Pipestone County, Havre, 10 bls. rags.
V. Galaup, Pipestone County, Havre, 276 bls. rags.
D. I. Murphy, Exhibitor, Marseilles, 86 bls. rags.
Castle & Overton, Inc., Bristol City, Bristol, 96 bls. rags.
Castle & Overton, Inc., West Cusseta, India, 19 bls. rags.

OLD ROPE

W. Steck & Co., Sac City, Rotterdam, 51 bls.
E. J. Keller Co., Inc., Sac City, ——, 90 bls.
W. Steck & Co., N. Amsterdam, Rotterdam, 49 bls.
Guaranty Trust Co., Cabo Villano, Palermo, 24 bls., 79 coils.
Brown Bros. & Co., St. Louis, Hamburg, 34 coils.
Equitable Trust Co., Hellig Olav, Copenhagen, 195 coils.

CHINA CLAY

Joseph Dixon Crucible Co., Reliance, Hamburg, 400 bags, 20,650 kilos.

CASEIN

Atterbury Bros., Inc., Rochambeau, Havre, 267 bags.
Atterbury Bros., Inc., Pipestone County, Havre, 334 bags.
Kalbfleisch Corp., So. Cross, Buenos Aires, 167 bags.
A. Klipstein & Co., Ile de France, Havre, 334 bags.

WOOD PULP

Scandinavian Pulp Agency, Inc., Gonzenheim, Skutskar, 3,200 bls. wood pulp.
Stora Kopperberg Corp., Gonzenheim, Skutskar, 480 bls. wood pulp.
——, Gonzenheim, Hernosand, 4,350 bls. sulphate.
——, Gonzenheim, Hernosand, 6,600 bls. sulphite.
Pagel, Horton & Co., Inc., Gonzenheim, Gefle, 2,500 bls. sulphite.
Bulkley, Dunton & Co., Gonzenheim, ——, 3,050 bls. wood pulp.
Perkins, Goodwin & Co., Gonzenheim, Wifstarvarf, 375 bls. sulphate.
Perkins, Goodwin & Co., Gonzenheim, Wifstarvarf, 150 bls. sulphite.
Scandinavian Pulp Agency, Inc., Gonzenheim, Wifstarvarf, 1,125 bls. sulphite.
Johanson, Wales & Sparre, Inc., Gonzenheim, Wifstarvarf, 400 bls. sulphite.
M. Gottesman & Co., Inc., Gonzenheim, Iggesund, 750 bls. sulphite.
M. Gottesman & Co., Inc., Gonzenheim, Iggesund, 1,250 bls. sulphate.
——, Tyrifjord, Oslo, 1,000 bls. sulphate.
Chemical National Bank, Tyrifjord, Tofte, 180 bls. sulphite.
O. E. Kiaer, Tyrifjord, Tofte, 500 bls. sulphite.
——. Tyrifjord, Greaker, 2,160 bls. sulphite.
International Accep. Bank, Tyrifjord, Oslo, 400 bls. sulphate.
M. Gottesman & Co., Inc., Sac City, Rotterdam, 670 bls. wood pulp, 67 tons.
Bulkley, Dunton & Co., N. Amsterdam, ——, 24 bls. wood pulp.
——, Bird City, Kotka, 968 bls. wood pulp, 180 tons.
Kidder, Peabody & Co., Gripsholm, Gothenburg, 129 bls. wood pulp.
Parsons & Whittemore, Inc., Gripsholm, Gothenburg, 600 bls. sulphate.
Castle & Overton, Inc., St. Louis, Hamburg, 989 bls. wood pulp, 148 tons.
Polaris Shipping Co., Artensis, Sonora, 1,078 cords wood pulp.
Castle & Overton, Inc., Thuringia, Hamburg, 2,062 bls. wood pulp, 309 tons.
——, Thuringia, Hamburg, 380 bls. wood pulp, 77 tons.

WOOD FLOUR

B. L. Soberski, Tyrifjord, Frederickstad, 5,250 bags.
Bakelite Corp., Sac City, Rotterdam, 840 bags, 50,790 ks.
State Chemical Co., Sac City, Rotterdam, 550 bags, 34,870 ks.
State Chemical Co., N. Amsterdam, Rotterdam, 420 bags.

WOOD PULP BOARDS

Chatham & Phoenix Natl. Bank, Gripsholm, Gothenburg, 29 bls.
Hensel, Bruckman & Lorbacher, G. Washington, Bremen, 80 bls.

PORTLAND IMPORTS

WEEK ENDING JUNE 22, 1929

——, Bird City, Helsingfors, 2,267 bls. sulphite, 340 tons.
——, Bird City, Kotka, 2,540 bls. sulphate, 507 tons.
——, Bird City, Kotka, 10,292 bls. sulphite, 1,729 tons.
——, Bird City, Tolkis, 2,160 bls. sulphite, 432 tons.

NEW ORLEANS IMPORTS

WEEK ENDING JUNE 22, 1929

Castle & Overton, Inc., Montreal Maru, Japan, 8 bls. wipers.
Castle & Overton, Inc., West Wauna, England, 124 bls. rags.

NORFOLK IMPORTS

WEEK ENDING JUNE 22, 1929

Chemical Natl. Bank & Trust Co., Tyrifjord, Tofte, 900 bls. sulphite.

PHILADELPHIA IMPORTS

WEEK ENDING JUNE 22, 1929

Atterbury Bros., Inc., Arkansas, Oslo, 500 bls. wood pulp.
E. M. Sergeant & Co., Arkansas, Oslo, 150 bls. wood pulp.
Farmers Loan & Trust Co., Arkansas, Oslo, 600 bls. wood pulp.
Brown Bros. & Co., Arkansas, Oslo, 400 bls. wood pulp.
Bank of New York, Examiner, Barcelona, 66 bls. bagging.
Chase National Bank, Examiner, Barcelona, 123 bls. rags.
——, Examiner, Barcelona, 117 bls. bagging.
1st Natl. Bank of Boston, Examiner, Barcelona, 80 bls. pickers.
E. J. Keller Co., Inc., Examiner, Barcelona, 49 bls. rags.
Banco Com'l Italiane Trust Co., Cabo Villano, Palermo, 373 bls. rags.
Banco Com'l Italiane Trust Co., Cabo Villano, Leghorn, 578 bls. rags.
Guaranty Trust Co., Cabo Villano, Leghorn, 302 bls. rags.
Guaranty Trust Co., Cabo Villano, Genoa, 201 bls. rags.
Guaranty Trust Co., Cabo Villano, Naples, 96 bls. rags.
Banco Com'l Italiane Trust Co., Cabo Villano, Naples, 260 bls. rags.
1st Natl. Bank of Boston, Cabo Villano, Naples, 50 bls. rags.
E. J. Keller Co., Inc., Cabo Villano, ——, 130 bls. rags.
Guaranty Trust Co., Tergestea, Bari, 35 bls. rags.
Castle & Overton, Inc., Minnesota, Havre, 288 bls. rags.
A. Hurst & Co., Sarcoxie, Havre, 80 bls. rags.
Lang Co., Sarcoxie, Havre, 156 bls. rags.
S. Specter & Co., Sarcoxie, Havre, 74 bls. rags.
Castle & Overton, Inc., Sarcoxie, Havre, 229 bls. rags.
G. Mathes & Co., Sarcoxie, Havre, 29 bls. rags.
Katzenstein & Keene, Inc., Sarcoxie, Havre, 92 bls. rags.
D. I. Murphy, Sarcoxie, Havre, 318 bls. rags.
Salomon Bros. & Co., Sarcoxie, Havre, 357 bls. rags.
J. A. Steer & Co., Sarcoxie, Dunkirk, 41 bls. rags.
G. Mathes & Co., Sarcoxie, Dunkirk, 49 bls. rags.
Katzenstein & Keene, Inc., Sarcoxie, Dunkirk, 288 bls. rags.
Darmstadt, Scott & Courtney, Sarcoxie, Dunkirk, 354 bls. rags.
Standard Waste Manfg. Co., Sarcoxie, Dunkirk, 25 bls. rags.
J. M. Hagy Waste Works, Sarcoxie, Dunkirk, 179 bls. rags.
Union Waste Co., Sarcoxie, Dunkirk, 104 bls. rags.
American Sanitary Rag Co., Sarcoxie, Dunkirk, 75 bls. rags.
S. Birkenstein & Son, Exhibitor, Marseilles, 57 bls. old rope.
E. J. Keller Co., Inc., London Exchange, ——, 115 bls. rags.
Castle & Overton, Inc., Cabo Ortegal, Spain, 169 bls. rags.
Castle & Overton, Inc., Cabo Carona, Spain, 92 bls. rags.

BALTIMORE IMPORTS

WEEK ENDING JUNE 22, 1929

Perkins, Goodwin & Co., Gonzenheim, Sundsvall, 625 bls. wood pulp.
Bulkley, Dunton & Co., Gonzenheim, ——, 2,700 bls. wood pulp.
M. Gottesman & Co., Inc., Gonzenheim, Iggesund, 4,700 bls. sulphite.
National City Bank, Arkansas, Antwerp, 287 bls. rags.
National City Bank, Arkansas, Antwerp, 111 bls. bagging.
Parsons & Whittemore, Inc., Arkansas, Oslo, 450 bls. wood pulp.
Farmers Loan & Trust Co., Arkansas, Oslo, 1,600 bls. wood pulp.
International Accep. Bank, Arkansas, Oslo, 400 bls. wood pulp.
O. E. Kiaer, Arkansas, Greaker, 3,900 bls. wood pulp.
Chemical National Bank & Trust Co., Tyrifjord, Tofte, 3,300 bls. sulphite.
O. E. Kiaer, Tyrifjord, Greaker, 2,250 bls. wood pulp.
Castle & Overton, Inc., Minnesota, Havre, 100 bls. rags.
National City Bank, Minnesota, Havre, 52 bls. rags.
E. J. Keller Co., Inc., Lubeck, ——, 341 bls. wood pulp.

BOSTON IMPORTS

WEEK ENDING JUNE 22, 1929

Farmers Loan & Trust Co., Arkansas, Oslo, 880 bls. wood pulp.
——, Bird City, Helsingfors, 338 bls. sulphite, 50 tons.
——, Bird City, Kotka, 5,332 bls. wood pulp, 960 tons.
——, Bird City, Tolkis, 2,066 bls. wood pulp, 418 tons.
D. I. Murphy, Pipestone County, Dunkirk, 195 bls. rags.
Irving Trust Co., Pipestone County, Havre, 72 bls. rags.
Hollingsworth & Vose, Pipestone County, Havre, 116 bls. bagging.
Train Smith Co., Pipestone County, Havre, 22 bls. rags.
D. M. Hicks, Inc., Pipestone County, Havre, 43 bls. rags.
Castle & Overton, Inc., Pipestone County, Havre, 23 bls. rags.
Irving Trust Co., Pipestone County, Havre, 86 bls. strings.
V. Galaup, Pipestone County, Havre, 157 bls. rags.
Katzenstein & Keene, Inc., Pipestone County, Havre, 49 bls. rags.
Castle & Overton, Inc., Lorain, Germany, 49 bls. rags.
Castle & Overton, Inc., Iserholm, Germany, 3,412 bls. wood pulp.
Castle & Overton, Inc., Natirar, Germany, 33 bls. rags.
Castle & Overton, Inc., Missouri, England, 58 bls. waste.

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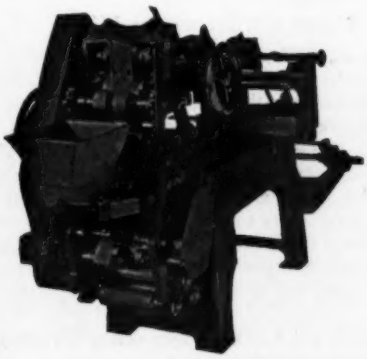

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New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, June 26, 1929.

While trading in the local paper market was only moderately active during the past week, the demand for the various grades was considered satisfactory for the time of the year. Sales forces of the leading paper organizations are booking occasional good orders and are optimistic over the future. Prices generally remain steady and unchanged.

Conditions in the news print market continue to improve. According to statistics gathered by the News Print Service Bureau, production in the United States and Canada was maintained at 85 per cent of capacity during the week ended June 22, while shipments averaged around 91 per cent of rating. Stocks on hand at the news print mills are decreasing and the outlook is more promising than for some time past.

No radical changes were recorded in the paper board market. While production and consumption are normal, the price situation remains unsatisfactory. The fine paper market is exhibiting a strong undertone and demand for the various grades is persistent. The coarse paper market is in a better position and wrapping paper is moving in good volume.

Mechanical Pulp

Business in the ground wood market was rather quiet during the past week. However, the industry is in a sound position. Production both in America and abroad is curtailed somewhat and there are no excessive accumulations. Prices are being maintained at previously quoted levels, in most instances, and there is little talk of concessions around.

Chemical Pulp

Although the demand for imported and domestic chemical pulp is rather light at present, steadiness prevails in the local market. Producers are well sold ahead on contract. Spot demand is quiet, however, due mainly to the arrival of open water shipments from the Baltic. Strong unbleached sulphite prices are firm and practically all grades are holding to schedule.

Old Rope and Bagging

Demand for old rope is excellent. Domestic and foreign grades of manila rope are particularly strong, and the recently advanced prices are being maintained without difficulty. The bagging market is showing signs of improvement. Roofing bagging is moving in satisfactory volume. Scrap and gunny are fairly active. Prices remain unaltered, in most instances.

Rags

The domestic rag market is practically unchanged. Cotton cuttings are inexcellent request, while roofing rags are moving in normal volume. Prices generally remain steady and unchanged, and shading is infrequent. Imported paper making rags are in fair demand from the paper mills, although dealers abroad are still asking high prices, due to limited offerings.

Waste Paper

Mill interests in the paper stock market has quietened down considerably, due to the approach of the inventory season. Most of the business transacted during the past week was along routine lines. The lower grades remain fairly steady. Demand for soft white shavings is persistent and this grade is displaying strength. Ledger stock is exceptionally quiet, with easier prices prevailing.

Twine

The twine market pursues the even tenor of its way. Demand for the various grades is fairly satisfactory for the season and the industry is considered in a sound position. Inquiries for future business are fairly numerous. Prices are generally steady and unchanged, and shading is infrequent.

Boston Paper Market Steady

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 24, 1929.—The Boston paper market is generally steady and as good as can be expected at this time of year. The demand has eased off a bit, but many mills are said to be operating fairly well and those manufacturing high grade papers are still very busy. The prospect for the rest of the year appears favorable.

The box board market is, in some respects, in a less unsatisfactory condition, although the general level of prices paid is no higher. A Boston box board man who recently traveled as far as Bridgeport, Conn., was gratified to find the minimum of prices in that city as high as those in Boston—$35 for chip board and $37.50 for news board. This fact seems particularly pleasing because of the proximity of Bridgeport to New York, where prices have tended lower. Prospects appear better than for a long time. A few more inquiries have developed and a few small orders placed which are regarded as indicative of a greater volume of business later, according to the trade.

It is said that, at least in some quarters, set-up and folding box manufacturers have more business than usual at this time of the year. Consumers have used up much low-priced material and are ordering again. An order was recently placed with a box board firm for three car-loads of material. It is still a considerable distance to a satisfactory condition. Profits are understood to be rather slim, if there are any, at present levels. Some houses are quoting $37.50 for chip board and $40 for news board. Considerable hope is placed on the fall and the approach of the holidays to bring a heavier volume of business and possibly an uplift in prices. Some of the board mills will shut down for the July vacations.

Seasonal quiet prevails in the market for old papers and rugs, with prices unquotably changed and prospects apparently good. Some report a very poor business.

Cushnoc Paper Co. Improves Mill

AUGUSTA, Me., June 24, 1929.—A $75,000 construction program is being carried out at the Cushnoc Paper Company plant, which when completed will better equip the Augusta mill for meeting the strong competition and present low prices of news print.

The installation of a Jenssen acid tower system at the sulphite mill will aid materially in increasing the production of that department. A fifth digester is also being added, which will account for a twenty-five per cent increase of capacity.

The company has a large supply of wood in its yard carried over from last year's drive and has just recently begun to receive the new wood which was cut for it last winter to the extent of 50,000 cords.

Indications at this plant point to a capacity output for the year 1929.

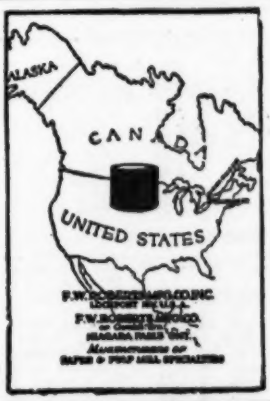
St. Regis Paper Company

Daily Capacity, 525 Tons

Newsprint
Catalog and Directory
Packers Oiled Manila
Fibre Wrapping
Specialties

General Sales Office
15 BROAD STREET
NEW YORK

B U R R S



B U R R S

GEORGE SHEVLIN AND
The TRIMBEY-SHEVLIN "Junior"

This "Junior" screens 40 tons G. W. using .065 plates using but 15 H.P. The TRIMBEY-SHEVLIN "Senior" handles 80 tons with 25 H.P.

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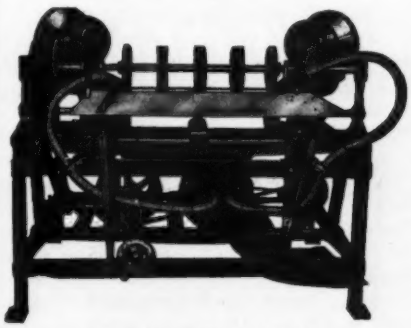
Glens Falls, N. Y.

A NEW
DECKLE EDGE MACHINE
For
Deckle Edging—Beveling—Creasing
Sheets ——— Cards
Deckles from One to Four Edges.
Produces Most Beautiful Effects from Laid Stock.



A REVELATION IN PRODUCING ARTISTIC DECKLING EFFECTS

Double or Single Head
THE LESTER & WASLEY CO., INC.
Franklin & Chestnut — Norwich, Conn.
Also builders of Envelope Machinery
Export Agents, Parsons & Whittemore, Inc., New York and London

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, June 26, 1929.

BLANC FIXE.—Steadiness prevails in the blanc fixe market. The contract movement is well up to average. Prices are holding to schedule. The pulp is quoted at from $42.50 to $45.00 per ton, in bulk, while the powder is still selling at from 3¾ cents to 4½ cents per pound, in barrels, at works.

BLEACHING POWDER.—The bleaching powder market is in a sound position. Supplies are moving into consumption in normal volume for the time of year. Prices are steady and unchanged and shading is infrequent. Bleaching powder is quoted at from $2.00 to $2.35 per 100 pounds, in large drums, at works.

CASEIN.—The casein market is unchanged. Domestic casein is quoted from 15¼ cents to 16¼ cents per pound, while Argentine standard ground is selling at from 15¼ cents to 15½ cents per pound, and finely ground at from 15¾ cents to 16 cents per pound, all in bags, car lot quantities.

CAUSTIC SODA.—Demand for caustic soda is persistent. Shipments against contract are going forward at a good pace. Prices remain unaltered. Solid caustic soda is quoted at from $2.90 to $2.95, while the flake and the ground are still selling at from $3.30 to $3.35 per 100 pounds, in large drums, at works.

CHINA CLAY.—Most of the business transacted in the china clay market during the past week was along routine lines. Prices are holding to schedule. Imported china clay is quoted at from $15 to $25 per ton, ship side, while domestic paper making clay is selling at from $8 to $13 per ton, at mine.

CHLORINE.—Conditions in the chlorine market are satisfactory. Supplies are moving into consumption in substantial volume. Prices remain unaltered. Chlorine is quoted at 3 cents per pound, in tanks, or multi-unit cars, at works, on standard contract. The spot quotation ranges from 3¾ cents to 3½ cents per pound.

ROSIN.—No radical changes were recorded in the rosin market. Prices are steady. The grades of gum rosin used in the paper mills are quoted at from $8.30 to $8.40 per 280 pounds, in barrels, ex dock. Wood rosin is selling at from $6.50 to $7.30 per 280 pounds, in barrels, at southern shipping points.

SALT CAKE.—The salt cake market was fairly active. Contract shipments continue to move in good volume. Prices are generally holding to previously recorded levels. Salt cake is quoted at from $16 to $18 per ton, while chrome salt cake is selling at from $14 to $15 per ton, in bulk, at works.

SODA ASH.—Trading in the soda ash market was seasonal. Contract shipments are being taken by the paper mills in satisfactory volume. Prices are being maintained at previously quoted levels. Contract quotations on soda ash, in car lots, at works, are as follows: in bags, $1.32½, and in barrels, $1.55.

STARCH.—The starch market is exhibiting a strong undertone. Shipments against contract are going forward in a normal manner. There are some inquiries for future business around. Prices remain steady. Special paper making starch is still quoted at $3.82 per 100 pounds, in bags, and at $3.99, in barrels.

SULPHATE OF ALUMINA.—Some improvement was noticed in the sulphate of alumina market. Demand for both the iron free and the commercial is steady. Commercial grades of sulphate of alumina are selling at from $1.40 to $1.55 per 100 pounds, at works. The iron free is quoted at from $1.90 to $2.05, at works.

SULPHUR.—The sulphur market continues active. Shipments against contract are heavy. Prices remain unchanged. Sulphur is quoted at $18 per ton, in lots of 1,000 tons, on yearly contracts, and at $20 per ton for any smaller quantity over that period. On spot and near by car loads, the quotation is $21 per ton.

TALC.—Business in the talc market is moderately active. The contract movement is around normal for the season. Prices remain unchanged. Domestic talc is quoted at from $16 to $18 per ton, at eastern mines, while imported talc is still selling at from $18 to $20 per ton, ship side.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@53.25
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub sized	10.00	@15.00
Engine sized	8.00	@11.00
Book, Cased—		
S. & S. C.	6.00	@ 7.50
M. F.	5.75	@ 7.00
Coated and Enamel	7.50	@12.00
Lithograph	7.50	@12.00
Tissues—Per Ream—		
White No. 1	.75	@ 1.00
Anti-Tarnish	1.35	@ 1.90
Colored	1.00	@ 2.00
White No. 2	.75	@ .80
Kraft	1.00	@ 1.10
Manila	.75	@ .80
Kraft—		
No. 1 Domestic	6.25	@ 6.50
No. 2 Domestic	5.25	@ 5.50
Southern	4.25	@ 4.50
Imported	6.50	@ 7.00
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.25
Fibre Papers—		
No. 1 Fibre	5.00	@ 5.50
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.75	@ 3.00
Screenings	3.00	@ 3.25
Card Middles	4.00	@ 5.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

(Delivered New York)

News, per ton—		
Rolls, contract	62.00	@ —
Rolls, spot	62.00	@ —
Sheets	67.00	@ —
Side Runs	47.00	@52.00
Boards—per ton—		
News	37.50	@40.00
Straw	52.50	@55.00
Chip	35.00	@37.50
Binders' Boards	65.00	@70.00
Sgl. Mla. Ll. Chip	47.50	@50.00
Wood Pulp	80.00	@85.00
65 Test Jute Liner	52.50	@ —
85 Test Jute Liner	55.00	@ —

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—		
Moist	28.00	@31.25
Dry	32.00	@34.00

(F. o. b. Mill)

No. 1 Domestic	26.00	@29.00
Screenings	15.00	@20.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	3.75	@ 4.40
Easy Bleaching	2.90	@ 3.10
No. 1 strong unbleached	2.65	@ 3.00
Mitscherlich unbleached	2.70	@ 3.25
No. 2 strong unbleached	2.40	@ 2.50
No. 1 Kraft	2.40	@ 2.75
No. 2 Kraft	2.35	@ 2.50
Sulphate—		
Bleached	3.60	@ 3.85

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.40	@ 4.75
Easy Bleaching Sulphite	2.65	@ 3.00
News Sulphite	2.50	@ 2.70
Mitscherlich	3.00	@ 3.25
Kraft (Domestic)	2.50	@ 3.30
Soda Bleached	3.10	@ 3.25
Sulphate Screenings—		
Coarse	.75	@ .95
Refined	1.65	@ 1.85

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1	11.00	@11.50
New White, No. 2	8.00	@ 8.50
Silesias No. 1	7.50	@ 8.00
New Unbleached	11.00	@11.50
New Blue Prints	5.25	@ 5.50
New Soft Blacks	5.25	@ 5.75
Washables	4.75	@ 5.25
Fancy	5.75	@ 6.25
Mixed Khaki Cuttings	4.75	@ 5.25
Pink Corset Cuttings	8.00	@ 8.50
O. D. Khaki Cuttings	5.15	@ 5.75
Men's Corduroy	3.75	@ 4.25
New Mixed Blacks	3.50	@ 3.75

Old Rags

White, No. 1—		
Repacked	5.50	@ 6.00
Miscellaneous	4.50	@ 5.00
White, No. 2—		
Repacked	3.00	@ 3.50
Miscellaneous	2.50	@ 2.75
St. Soiled, White	2.00	@ 2.15
Thirds and Blues—		
Repacked	2.25	@ 2.50
Miscellaneous	1.75	@ 2.00
Black Stockings	3.25	@ 3.75
Roofing Rags—		
Cloth Strippings	1.70	@ 1.80
No. 1	1.70	@ 1.80
No. 2	1.55	@ 1.65
No. 3	1.30	@ 1.40
No. 4	1.25	@ 1.35
No. 5A	.90	@ 1.05

Foreign Rags

New Rags

New Dark Cuttings	2.50	@ 3.00
New Mixed Cuttings	2.75	@ 3.25
New Light Silesias	7.00	@ 7.50
Light Flannelettes	7.50	@ 8.00
Unbleached Cuttings	10.00	@11.00
New White Cuttings	10.50	@11.50
New Light Oxfords	7.00	@ 7.50
New Light Prints	5.50	@ 6.50

Old Rags

No. 1 White Linens	7.50	@ 8.25
No. 2 White Linens	5.75	@ 6.75
No. 3 White Linens	4.75	@ 5.25
No. 4 White Linens	3.00	@ 3.50
No. 1 White Cotton	5.50	@ 6.50
No. 2 White Cotton	4.50	@ 5.50
No. 3 White Cotton	3.00	@ 4.00
No. 4 White Cotton	1.90	@ 2.15
Extra Light Prints	2.75	@ 3.25
Ord. Light Prints	2.25	@ 2.50
Med. Light Prints	2.00	@ 2.10
Dutch Blue Cottons	2.25	@ 2.40
French Blue Linens	2.75	@ 2.85
German Blue Linens	2.35	@ 2.55
German Blue Cottons	2.15	@ 2.25
Checks and Blues	1.85	@ 2.00
Lindsay Garments	1.85	@ 1.95
Dark Cottons	1.60	@ 1.65
Old Shopperies	1.55	@ 1.60
New Shopperies	1.50	@ 1.60
French Blues	2.10	@ 2.25

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	1.60	@ 1.70
Domestic	1.70	@ 1.75
Wool Tares, light	1.60	@ 1.65
Wool Tares, Heavy	1.60	@ 1.70
Bright Bagging	1.60	@ 1.70
Small Mixed Rope	1.25	@ 1.40
Manila Rope—		
Foreign	4.60	@ 4.85
Domestic	5.00	@ 5.25
New Burlap Cut	2.75	@ 3.00
Hessian Jute Threads—		
Foreign	3.50	@ 4.00
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, white, No. 1	3.25	@ 3.50
Hard, white, No. 2	2.40	@ 2.55
Soft, White, No. 1	2.50	@ 2.60
White envelope cuttings	3.00	@ 3.50
Flat Stock—		
Stitchless	1.60	@ 1.70
Overissue Mag.	1.60	@ 1.70
Solid Flat Book	1.50	@ 1.60
Crumpled No. 1	1.10	@ 1.20
Solid Book Ledger	2.00	@ 2.10
Ledger Stock	1.40	@ 1.50
New B. B. Chips	.65	@ .75
Manilas—		
New Env. Cut	2.40	@ 2.60
New Cuttings	1.60	@ 1.85
Extra No. 1 old	1.25	@ 1.35
Print	.75	@ .80
Container	.57½	@ .60
Bogus Wrapper	.75	@ .85
Old Kraft Machine Compressed bales	1.90	@ 2.00
News—		
No. 1 White News	1.65	@ 1.75
Blue Overall	7.50	@ 8.00
Strictly Overissue	75	@ .80
Strictly Folded	.57½	@ .62½
No. 1 Mixed Paper	.42½	@ .47½
Common Paper	.30	@ .35

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Twines
(F. o. b. Mill)

Cotton—			
No. 1	.39	@	.40
No. 2	.37	@	.38
No. 3	.36	@	.37
B. C., 18 basis	.38	@	.40
A. B. Italian, 18 basis	.48	@	.53
Finished Jute—			
Dark 18 basis	.24	@	.25
Light 18 basis	.27	@	.28
Jute Wrapping, 3-6 Ply—			
No. 1	.19	@	.21
No. 2	.18	@	.20
Tube Rope—			
4-ply and larger	.16	@	.17
Fine Tube Yarn—			
5-ply and larger	.21	@	.25
4-ply	.25	@	.29
3-ply	.28	@	.32
Unfinished India—			
Basis	.13	@	.14
Paper Makers Twine			
Balls	.11	@	.12
Box Twine, 2-3 ply—			
Jute Rope	.15	@	.17
Amer. Hemp, 6	.17	@	.19
	.29	@	.31
Sisal Hay Rope—			
No. 1 Basis	.16	@	.18
No. 2 Basis	.14	@	.16
Sisal Lath Yarn—			
No. 1	.14	@	.16
No. 2	.12	@	.14
Manila Rope	.22	@	.24

CHICAGO

Paper
(F. o. b. Mill)

Rag Bond	.30	@	.53¼
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.06¾	@	.11
Superfine writing	.18	@	.24
No. 1 fine writing	.14	@	.18
No. 2 fine writing	.12	@	.14
No. 3 fine writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07¼
No. 2 M. F. Book	.05¼	@	.06¼
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¼
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	.06¼	@	.06½
Southern Kraft	.03¾	@	.04
No. 2 Kraft	.04	@	.04¼
Wood Tag Boards	.04¼	@	.06¾
Sulphite Screenings	.03	@	.03¾
Manila Tissue—			
24x36 Sheet	.07	@	.07¼
White Tissue—			
20x30 Sheet	.07¼	@	.07½
(Delivered Central Territory)			
News, per ton—			
Rolls, contract	62.00	@	—
Sheets	67.00	@	—
Boards, per ton—			
Plain Chip	37.50	@	42.50
Solid News	47.50	@	—
Solid News	40.00	@	45.00
Manila Lined Chip	50.00	@	55.00
Container Lined—			
85 Test	65.00	@	70.00
100 Test	70.00	@	—

Old Papers
(F. o. b. Chicago)

Shavings—			
No. 1 Hard White	2.20	@	2.25
White Env. Cuttings	2.40	@	2.50
No. 1 Soft Shavings	2.00	@	2.10
No. 1 Mixed	.90	@	1.00
No. 2 Mixed	.70	@	.75
Ledger & Writings	1.25	@	1.35
Solid Books	1.25	@	1.30
Blanks	1.40	@	1.50
Krafts	1.60	@	1.75
New Kraft Cuts	2.15	@	2.25
Manila Envelope Cuttings	1.65	@	1.75
Ex. No. 1 Manila	1.30	@	1.45
Print Manila	.75	@	.80
Folded News (overissue)	.80	@	.85
Old Newspapers—			
No. 1	.65	@	.70
No. 2	.60	@	.65
Mixed Papers—			
No. 1	.60	@	.65
Roofing Stocks—			
(F. o. b. Chicago, net cash)			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper
(F. o. b. Mill)

Bonds	.06	@	.40
Ledgers	.09	@	.40
Writings—			
Superfine	.12½	@	.18
Extra fine	.18	@	.22
Fine	.17	@	.26
Fine, No. 2	.15	@	.25
Fine, No. 3	.10	@	.20
Book, M. F.	.05½	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.09½	@	.16
Coated Lithograph	.07	@	.11
Label	.07	@	.11
No. 1 Jute Manila	.08	@	.09
Manila Sul., No. 1	.04	@	.05½
Manila No. 2	.03	@	.04
No. 2 Kraft	.06	@	.06½
No. 1 Kraft	.06½	@	.07
Common Bogus	.03½	@	.04
(Delivered Philadelphia)			
News Print Rolls	62.00	@	—
Straw Board	52.50	@	75.00
News Board	35.00	@	40.00
Chip Board	32.00	@	40.00
Wood Pulp Board	85.00	@	95.00
Binder Boards—			
No. 1, per ton	75.00		
No. 2, per ton	70.00		
Carload lots	68.00	@	70.00
Tarred Felts—			
Regular	55.50	@	57.00
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.95	@	2.10
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply	2.00	@	2.25

Domestic Rags (New)
(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.10½	@	.11
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07½
Silesias, No. 1	.07	@	.09
Black Silesia, soft	.05	@	.05½
New Unbleached	.10½	@	.11
Washable, No. 1	.04½	@	.05
Blue Overall	.07½	@	.08
Cottons—According to grades—			
Washable, No. 2	.03	@	—
New Blue	.03	@	.03½
Fancy	.05½	@	.06
New Black Soft	.05	@	.05¾
New Light Seconds	.02½	@	.03
New Dark Seconds	1.85	@	2.00
Khaki Cuttings—			
No. 1 O. D.	.05½	@	.05¾
No. 2 Mixed	.04½	@	.04¾
Corduroy	.03	@	.03½
New Canvas	.08½	@	.09
New Black Mixed	.03¾	@	.04½

Bagging
(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.50	@	1.60
Domestic	1.75	@	—
Manila Rope	3.50	@	4.00
Sisal Rope	1.50	@	—
Mixed Rope	1.10	@	1.25
Scrap Burlaps—			
No. 1	1.50	@	1.60
No. 2	1.10	@	1.20
Wool Tares, heavy	3.00	@	—
Mixed Strings	1.15	@	1.25
No. 1, New Light Burlap	2.50	@	2.75
New Burlap Cuttings	2.00	@	2.25

Old Papers
(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	3.20	@	3.25
No. 2 Hard White	2.75	@	3.00
No. 1 Soft White	2.80	@	2.90
No. 2 Soft White	1.80	@	1.90
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	.90	@	1.00
Solid Ledger Stock	1.85	@	1.90
Writing Paper	1.60	@	1.65
No. 1 Books, heavy	1.40	@	1.50
No. 2 Books, light	1.05	@	1.15
No. 1 New Manila	2.40	@	2.50
No. 1 Old Manila	1.50	@	1.60
Print Manila	.95	@	1.00
Container Manila	.85	@	.90
Old Kraft	2.25	@	2.50
Common paper	.50	@	.55
No. 1 Mixed Paper	.65	@	.70
Straw Board, Chip	.65	@	.70
Binders Board, Chip	.65	@	.70
Overissue News	.85	@	.90
Old Newspaper	.50	@	.55

Domestic Rags (Old)

White, No. 1—			
Repacked	4.25	@	4.50
Miscellaneous	3.50	@	3.75
White, No. 2	2.00	@	2.25
Thirds and Blues—			
Repacked	2.00	@	2.25
Miscellaneous	1.60	@	1.80
Black Stockings (Export)	3.90	@	4.25
Roofing Stock—			
Foreign No. 1	1.65	@	1.75
Repacked	.02½	@	.04¾
No. 2	1.30	@	1.35
No. 3 (Roofing)	1.15	@	1.25
No. 4	1.00	@	1.15
No. 5A	.75	@	.85
B	.65	@	.75
C	.65	@	.75

BOSTON

Paper
(F. o. b. Mill)

Ledgers—			
Sulphite	.07½	@	.15
Rag content	.15	@	.30
All rag	.38	@	.52½
Bonds—			
Sulphite	.06½	@	.11½
Rag content	.15	@	.30
All rag	.36½	@	.65
Writings	.07	@	.20
Superfines	.11	@	.31
Book, Super	.06	@	.09
Book, M. F.	.05¾	@	.08½
Book, Coated	.08½	@	.20
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.06¼	@	.06½
No. 2 Kraft	.04½	@	.05½
Common Bogus	.02	@	.02¾
Delivered New England points			
News Print Rolls	61.50	@	—
Straw Boards, rolls .009			52.50
Straw Board in Sheets, basis 35s to 70s	54.50	@	55.00
Filled News Board	37.50	@	40.00
Chip Board	35.00	@	37.50
Single Manila Lined Chip	47.50	@	50.00
Single White, Patent Coated Newsboard Bender	65.00	@	80.00
Wood Pulp Board	80.00	@	85.00
Binder Boards	70.00	@	75.00
(F. o. b. Mill)			
Tarred Felts—			
Regular, carload lots	65.00	@	—

Old Papers
(F. o. b. Boston)

Shavings—			
No. 1 Hard White	3.25	@	3.75
No. 2 Hard White	2.60	@	2.90
No. 1 Soft White	2.40	@	2.50
No. 1 Mixed	1.10	@	1.15
No. 2 Mixed	.85	@	.90
Solid Ledger Stock	2.35	@	2.45
No. 1 Books, Heavy	1.50	@	1.55
No. 1 Books, Light	—	@	1.15
Manila Env. Cuttings	2.00	@	2.25
No. 1 Old Manila	.90	@	1.00
White Blank News	1.50	@	1.60
Old Kraft	1.75	@	1.80
Print Manila	.80	@	.90
No. 1 Mixed Paper	.40	@	.45
Overissue News	.65	@	.70
Old Newspapers	.50	@	.52½
Box Board, Chip	.55	@	.60

Bagging
(F. o. b. Boston)

Gunny No. 1—			
Foreign	—	@	1.50
Manila Rope—			
Foreign	4.75	@	5.00
Domestic	5.00	@	5.25
Mixed Strings	.90	@	1.00
Jute Wool Strings	—	@	1.00
Scrap Burlaps	1.37½	@	1.50
Scrap Sisal	1.87½	@	2.00
Scrap Sisal for shredding	1.85	@	2.00
Wool Tares, heavy	1.60	@	—
New Burlap Cutting	1.90	@	2.00
Australian Wool Pouches	3.00	@	3.12½

Domestic Rags (New)
(F. o. b. Boston)

Shirt Cuttings—			
New White No. 1	.09½	@	.10
Silesias, No. 1	.06	@	.06¼
New Unbleached	.10	@	.10¼
Fancy	.04	@	.04½
Washable	.04	@	.04½
Cottons—According to grades			
Blue Overalls	.06¼	@	.06¾
New Black, soft	.04	@	.04¼
Khaki Cuttings	.04	@	.04¼
O. D. Khaki	.05	@	—
Corduroy	.03	@	.03½
New Canvas	.08	@	.08½

Domestic Rags (Old)
(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	4.75	@	5.25
Miscellaneous	5.00	@	—
White No. 2—			
Repacked	.04½	@	.05
Miscellaneous	.03½	@	.04
Twos and Blues	2.75	@	3.00
Thirds and Blues—			
Repacked	2.50	@	—
Miscellaneous	1.75	@	1.90
Black Stockings	—	@	4.00
Roofing Stock—			
No. 1	1.65	@	1.75
No. 2	1.45	@	1.55
No. 3	1.05	@	1.10
No. 4	1.10	@	1.15

Foreign Rags
(F. o. b. Boston)

Dark Cottons	1.55	@	1.60
New No. 1 Shirt Cuttings	9.00	@	10.00
Dutch Blues	2.00	@	2.12½
Lace Curtains	4.75	@	5.00
New Checks & Blues	4.25	@	4.50
Old Fustians	1.90	@	—
Old Linsey Garments	1.85	@	1.90

TORONTO

Paper
(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¾	@	—
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
Book—			
No. 1 M. F. (carloads)	7.50	@	—
No. 2 M. F. (carloads)	7.25	@	—
No. 3 M. F. (carloads)	7.00	@	—
No. 1 S. C. (carloads)	8.00	@	—
No. 2 S. C. (carloads)	7.75	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 1 Coated and Litho	13.25	@	—
No. 2 Coated and Litho	12.25	@	—
No. 3 Coated and Litho	11.50	@	—
Coated tinted	14.50	@	—
Wrapping—			
Rag Brown	4.95	@	—
White Wrap	5.25	@	—
"B" Manila	5.80	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.00	@	—

(Delivered Toronto)

News, per ton—			
Rolls (contract)	61.50	@	62.00
Sheets	67.00	@	—

Pulp
(F. o. b. Mill)

Ground Wood	30.00	@	31.00
Sulphite easy bleaching	60.00	@	—
Sulphite news grade	60.00	@	—
Sulphite, bleached	77.00	@	—
Sulphate	60.00	@	—

Old Waste Paper
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.00	@	—
Soft White Book Shavings	2.85	@	—
White Blk. News	1.60	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.40	@	—
Light and Crumpled Book Stock	1.25	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	1.00	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.85	@	—
Strictly Folded	.85	@	—
No. 1 Mixed Paper	.65	@	—

Domestic Rags
(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.10	@	.10½
Fancy Shirt Cuttings	.05½	@	—

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Round Belting
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Leather Link "V" Belting
Leather Cups
"U" and Flange Packings
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How the CANTILEVER SUCTION ROLL *works*

ANOTHER innovation in papermaking efficiency on modern machines is the Beloit Cantilever suction couch roll. Instead of the usual large-diameter bearings, this suction roll is equipped with small diameter anti-friction bearings. It also has an extended journal for tilting the front of the roll to relieve the weight from the supporting stand under the front-bearing. This stand is of aluminum. By loosening the four swing bolts, it can be removed easily to permit the new wire to be draped over the couch roll from the Beloit patented wire carriage. This avoids the perilous use of a "cigarette holder" or an overhead crane.

The small-diameter bearings are more economical in upkeep and replacement. Their design also permits driving direct from the inshaft without the use of a train of gears, as required on large-diameter bearings.

The packing strips on the suction box inside the roll are so mounted as to have only very slight contact with the shell —a feature that reduces friction to the minimum. This "self-balancing" packing head is supported on flexible members so as to maintain even contact between the packing and the shell, regardless of the amount of vacuum being carried. The power to drive the rolls does not vary with the vacuum as in other rolls. This eliminates the variation in power factor and reduces the wear and tear on both the packing and shell.

Get all the facts . . . write for particulars

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WALWORTH WALWORTH

ACID

GLOBE VALVE

WALWORTH WALWORTH

In sizes ½, ¾, 1, 1¼, 1½, 2, 3 and 4 inch as follows: *Type 1:* All iron with steel stem. *Type 2:* Iron with Sigmalloy 222 seat and disc and rolled Monel stem. *Type 3:* All steel. *Type 4:* Steel with Sigmalloy 222 seat and disc and rolled Monel stem.

The Walworth Acid Globe Valve is recommended for use in chemical process lines, particularly those carrying acids which attack brass. A distinct advantage over the other type of globe valve is that the stem thread is not exposed to the action of the chemicals. The body is very heavy,—the additional thickness of the body walls provides long service where chemicals are actively at work on the metal.

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LAKEWOOD

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The Originators of Tier-LifT

Silicate of Soda in Paper Making

Why you should use Silicate of Soda

From an operating point of view—

1. Good formation of the sheet and satisfactory removal of water by suction.
2. No sticking on the press rolls.
3. As a result of the above, increased life of the felts.
4. Quick and complete sedimentation of the white waters.
5. Increased retention of filling materials without sacrifice of strength.
6. Economy in coloring.

From the quality point of view—

1. A small though definite increase in strengtn. Tnis is of the order of 10 per cent.
2. Increase of rattle or snap of the paper.
3. Better feel—i.e., a smoother surface free from protruding fiber ends.
4. The combination of quick absorption of printer's ink with hardness which makes a clean impression for offset and other rapid printing processes.
5. Reduction of the tendency of cut sheets to curl.

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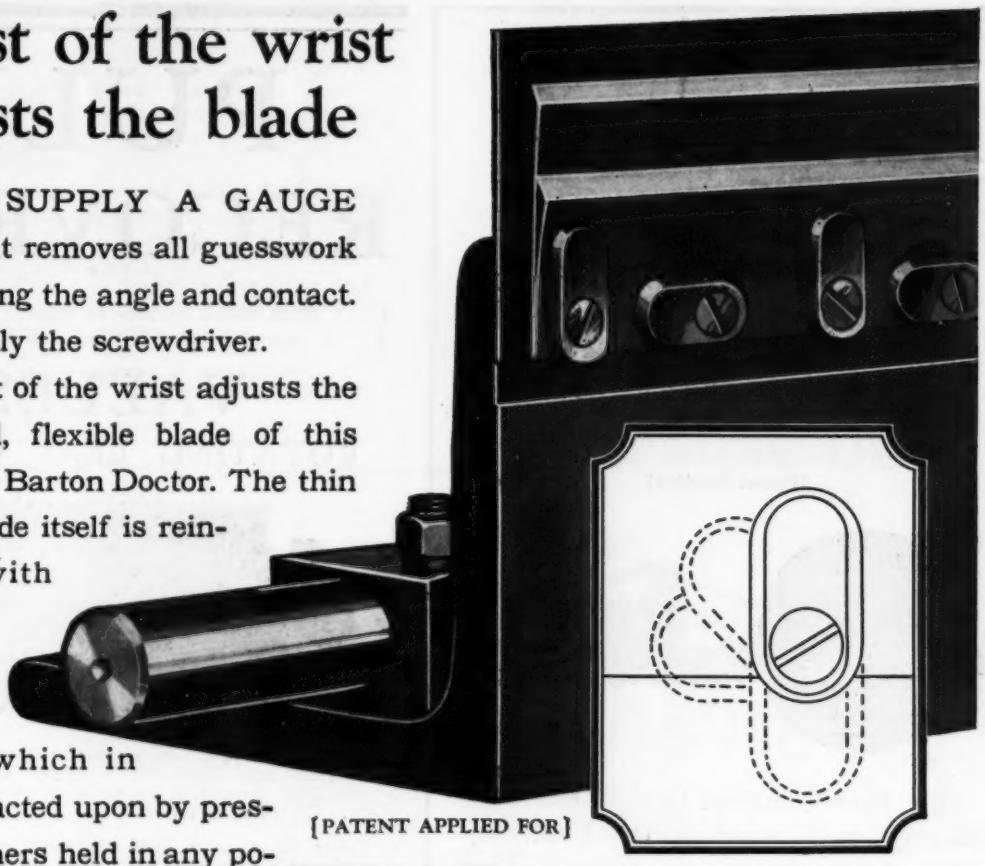
A twist of the wrist adjusts the blade

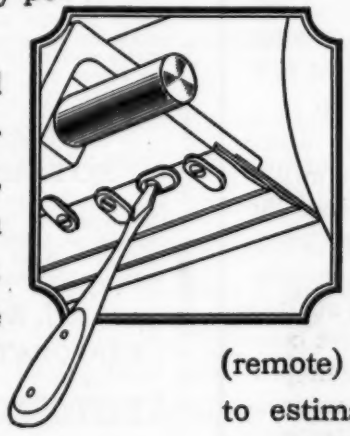
WE SUPPLY A GAUGE that removes all guesswork in adjusting the angle and contact. You supply the screwdriver.

A twist of the wrist adjusts the laminated, flexible blade of this new Rice Barton Doctor. The thin metal blade itself is reinforced with double flexible spring leaves, which in turn are acted upon by pressure washers held in any position by their screws.



[PATENT APPLIED FOR]

Perfect contact all across the roll is obtained without peening, filing, or grinding. You save time, labor, money. You save power, for the thin flexible blade wipes clean with very light pressure.



These doctors can be applied wherever a Doctor is needed. Provided with hand and electric (remote) control. We are ready to estimate on complete Doctor equipment for you.

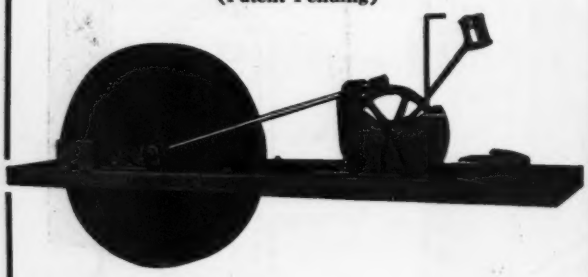
RICE BARTON & FALES INC.
WORCESTER MASSACHUSETTS

Laminated
FLEXIBLE DOCTOR
with adjustable blade

19

Automatic White Water Sampler

(Patent Pending)



Pulp fibres contained in the white water effluent of pulp, paper and board mills represent an amazing loss in dollars. These losses can be accurately measured. In some instances they have amounted to 10 per cent of the annual production of the mills.

"To get the whole story of white water losses—and to get it quickly for the mill—an adequate method of determining the amount of stock and filler should be available. The importance of a truly representative sample of the effluent for this analysis can hardly be overemphasized. These composite samples should be collected in proportion to the flow, preferably by an automatic device such as described by Edwardes, and which is now available on the market."* —Paper Trade Journal, Jan. 3.

Ask for Bulletin W-1

*

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from black liquors at least 3½ pounds per thousand gallons, by the use of

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Vallez Filters give 100% efficiency in the removal of solids on a single filtration. Rotation of the filter leaves makes possible utilization of entire filtering surface to maximum capacity. Sluicing off is accomplished thoroughly within the filter. It is never necessary to remove the leaves for washing, or to open the filter during operation.

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—by testing between individual turns—
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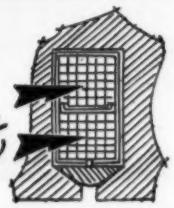
throughout



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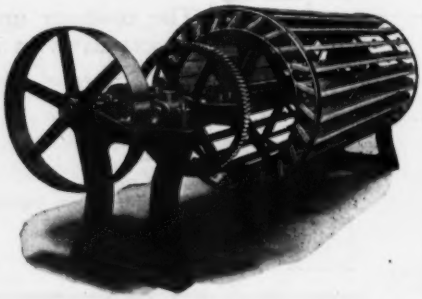
A. D. Wood Machine : Application No. 2*

THICKENING
LOW DENSITY
FEED TO
HI-DENSITY
THICKENERS



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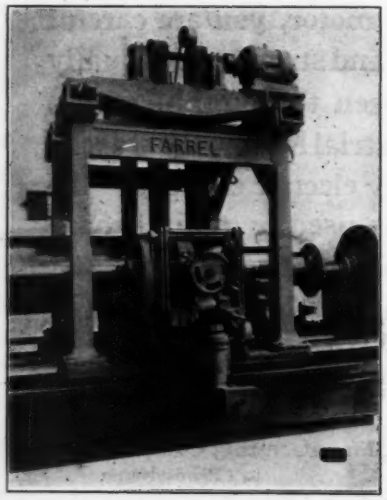
The ideal machine for prethickening. A judicious proportion of primary and secondary thickening will save much in the complete installation. Why not investigate? Ask for the Bulletin.



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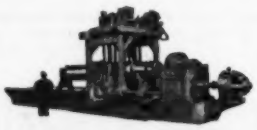
FARREL NEW TYPE ROLL GRINDER is the only grinder made with combined SWING REST and CROWNING DEVICE, which makes for much more accurate and faster grinding. The combination is shown in the close-up at the left. The crowning device can be set in the minimum time and produces a perfect crown.

FARREL ROLL GRINDERS are made in 24", 32", 36" and 42" sizes, all electrically driven throughout and fitted with the combination Swing Rest and Crowning Device, Geared Head and Automatic Lubrication.



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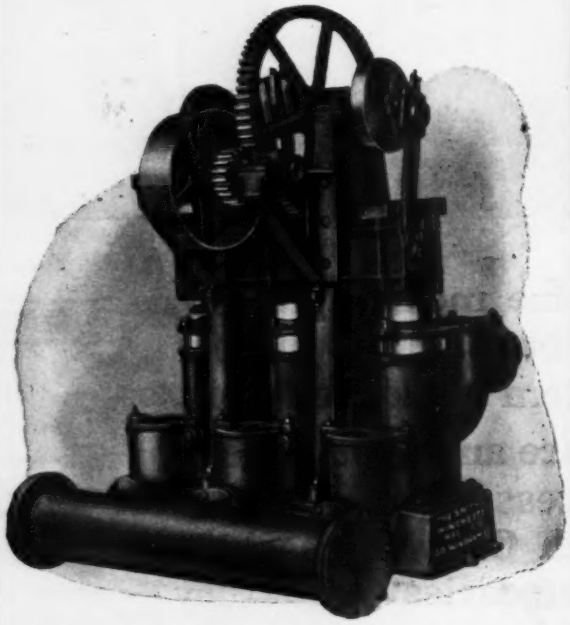

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1460 PAPER TERMS

Drawn up by the Sectional Committee on Definitions

THIS BOOK should be in the hands of every paper manufacturer, every paper merchant, exporter, importer, every converter and every buyer of paper, as well as every producer of materials used in paper manufacture.

CONTENTS

In this list of definitions has been included, as far as possible—

(a) The basic paper terms used in the classification (identified by the classification numbers).

(b) The various commercial papers, the names of which have, in most instances, grown out of special uses to which the papers have been put.

(c) Various converted articles made from paper.

(d) Standard sizes of papers.

(e) Special finishes of papers.

(f) Miscellaneous paper terms.

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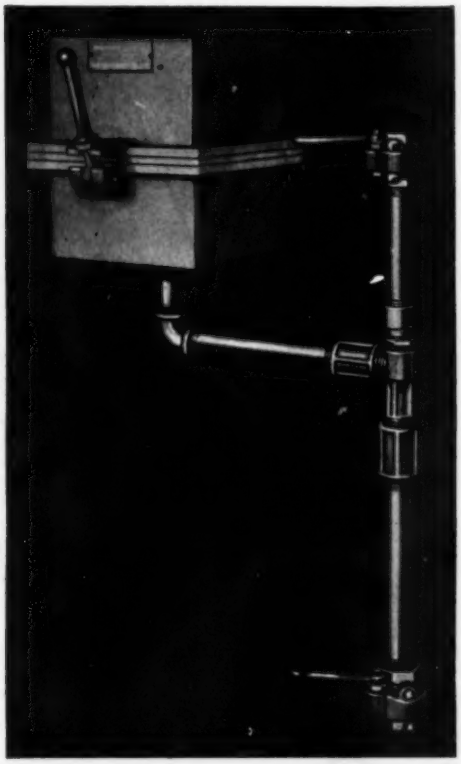
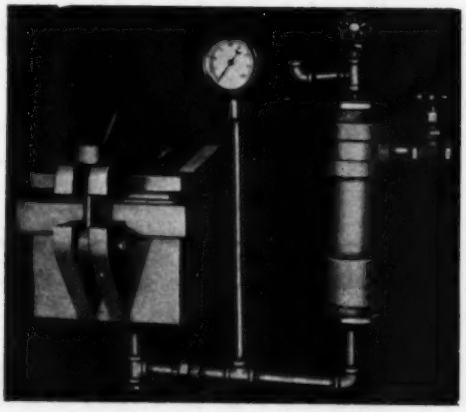
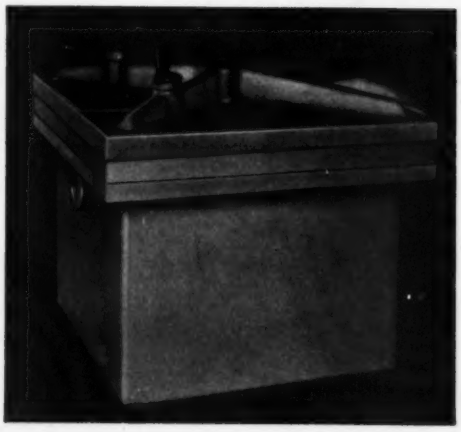
..APPLETON LABORATORY EQUIPMENT



Sheet Machine



Hydraulic Press



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When some question arises in your paper making process let Appleton Laboratory Equipment help you find the answer. Producing a test sheet under positive conditions closely approximating machine room conditions, Appleton Laboratory Equipment is a distinct aid in promoting accurate laboratory control and development in the making of good paper. A descriptive folder will be mailed to you upon request.

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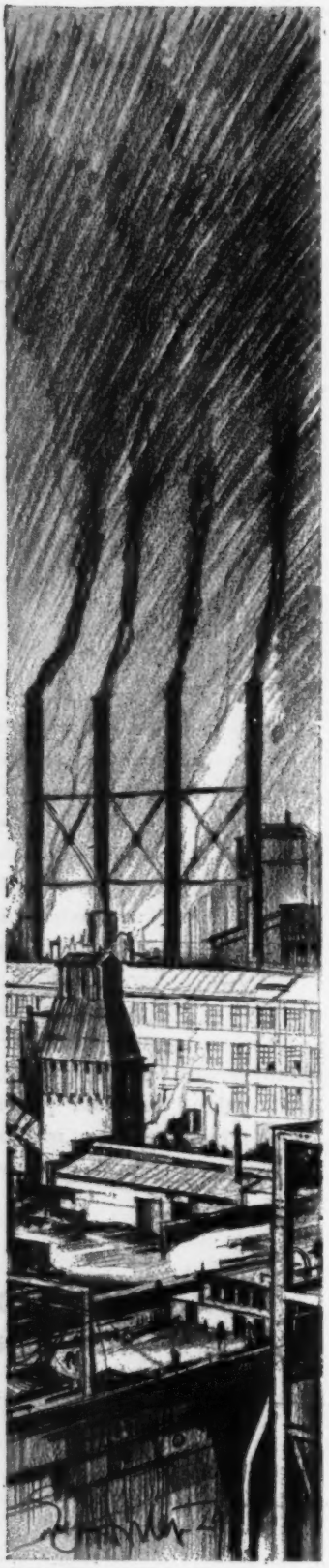

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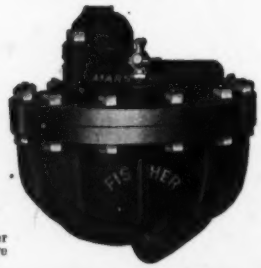

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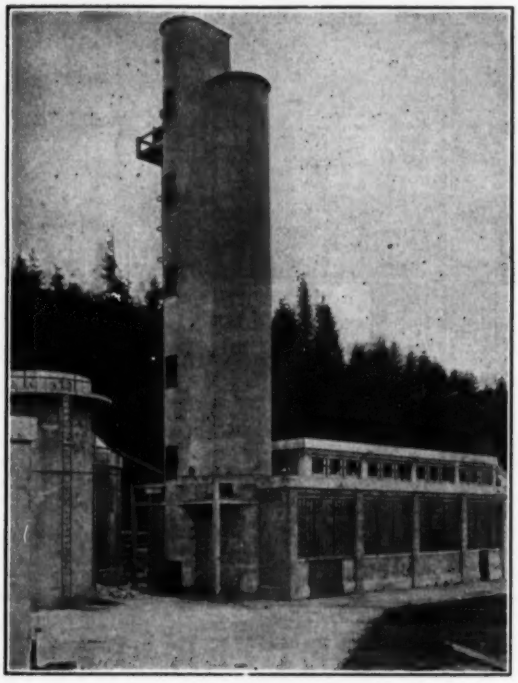

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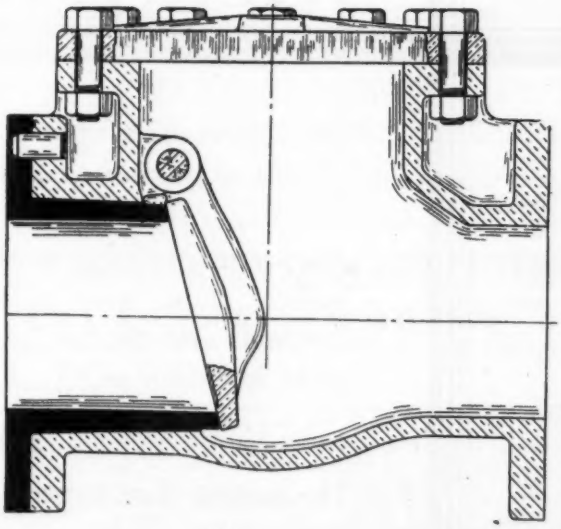

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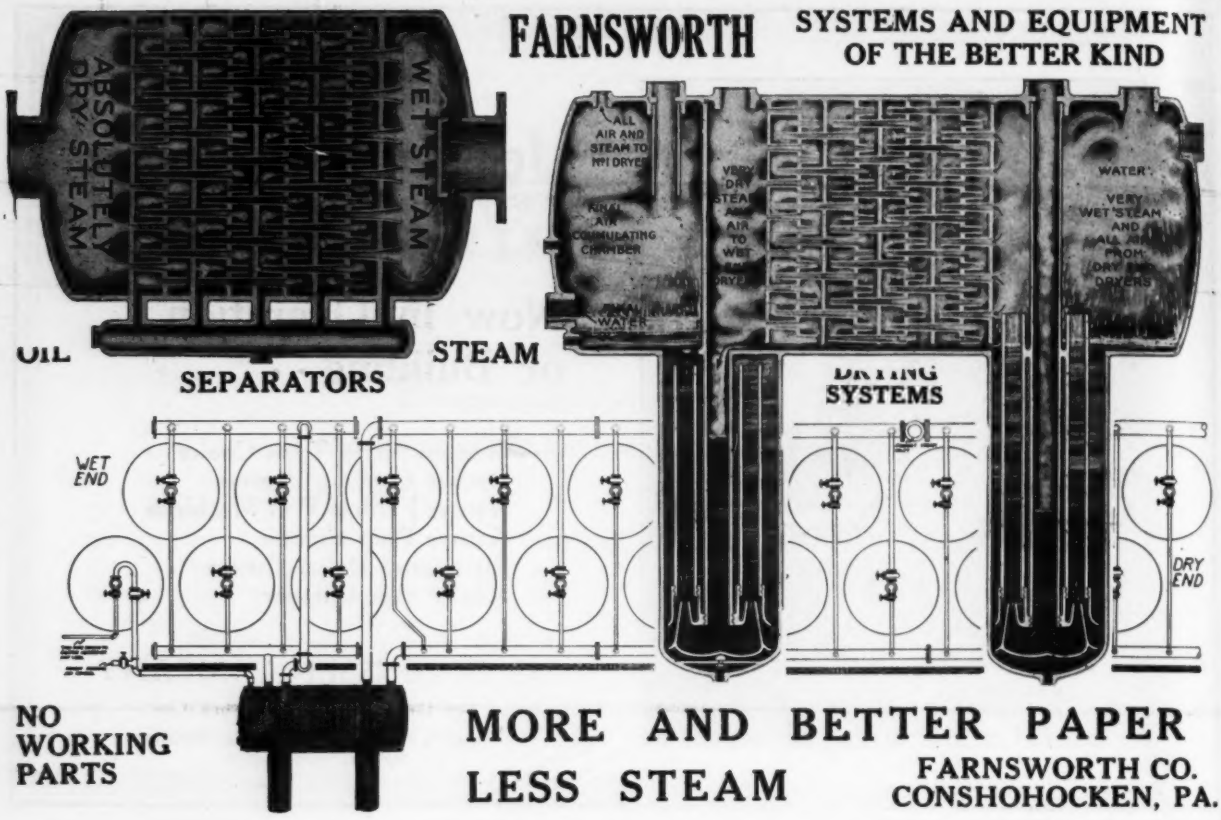
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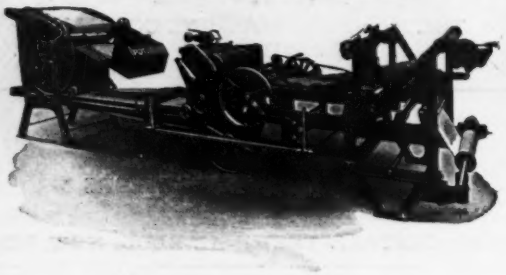

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SALESMAN WANTED—Waxed paper salesman on commission basis for territory including Indianapolis, Columbus, Cincinnati and Dayton, by old established waxed paper mill. Address, Box 29-418, care Paper Trade Journal. Jn-27

PAPER MACHINE TENDERS and backtenders. Write full details of experience. Address, Box 29-419, care Paper Trade Journal. Jn-27

WANTED—Young Protestant boss finisher with super calender experience for mill making high grade bonds and ledgers, located in Massachusetts. In applying state age, experience and references. Address, Box 29-420, care Paper Trade Journal. Jl-4

WANTED—Backtender on Harper machine making high grade tissue, two fours. Flower City Tissue Mills Co., Rochester, N. Y. Jn-27

WANTED—Office manager, New England mill; boss beater; engineering draftsman; boss machine tender; beater engineers. Paper Mill Dept., Charles P. Raymond Service, Inc., 294 Washington St., Boston, Mass. Jn-27

SUPERINTENDENT WANTED—For fine paper making and colored specialties. Must be experienced in rag and sulphite papers and come well recommended. 2 machine mill. Send copy of references and state salary expected with first reply. All replies strictly confidential. Address, Box 29-409, care Paper Trade Journal. Jl-11

WANTED—Engineer draftsman experienced in the design of structures and equipment layout for paper and pulp mills. State age, education, experience, married or single, salary required, and references in first letter. Position is permanent. Address, Box 29-406, care Paper Trade Journal. Jl-11

WANTED—Paper mill machinery salesman; preferably a man with engineering and paper mill training. State age, qualifications, references, etc. All communications will be kept strictly confidential. DOWNINGTOWN MANUFACTURING COMPANY, Downingtown, Pa. Jl-11

WANTED—Machine tenders and backtenders experienced on Harper machines making tissues. Give full information as to experience, with references. Address, Box 29-387, care Paper Trade Journal. Jn-27

IF YOU are open to overtures for new connection, and qualified for a salary between $2,500 and $25,000, your response to this announcement is invited. The undersigned provides a thoroughly organized service, of recognized standing and reputation, through which preliminaries are negotiated confidentially for positions of the calibre indicated. The procedure is individualized to each client's personal requirements; your identity covered and present position protected. Established nineteen years. Send only name and address for details. R. W. Bixby, Inc., 117 Downtown Building, Buffalo, New York. tf.

HELP WANTED

WANTED—Mechanical engineer draftsman, thoroughly experienced in the development and design of automatic machinery. Must be engineering graduate with ingenuity and vision. State age, education, experience, married or single, salary required and references in first letter. Position is permanent. Address, Box 29-407, care Paper Trade Journal. Jl-11

SALESMAN WANTED—By manufacturer of glazed and fancy papers. Reply giving full particulars as to qualifications. Address, Box 29-392, care Paper Trade Journal. Jl-4

WANTED—Engineer with knowledge of paper and pulp mill process. Must be of the executive type with ability to handle the development and planning of an entire project. This position can be filled by either a chemical, mechanical, or civil engineer and will be permanent. A man with ability to visualize and plan the process in terms of equipment, machinery and buildings, is required. We can offer exceptional opportunities to the engineer with the right personality, ability and experience. Address, Box 29-408, care Paper Trade Journal. Jl-11

$3,000.00-$30,000.00 men find our Service effective in making connections. Individual. Confidential. Personally planned by JACOB PENN. All mill owners know him, believe in him. Not agency. Jacob Penn, Incorporated, 9 Park Place, New York. tf.

SITUATIONS WANTED

AMERICAN, very active background of executive work, managing buying and selling, would like to hear from first-class concerns interested in these attributes. Handling of business among wholesalers, jobbers and chain grocery store concerns in New York City market. Address, Box 29-77, care Paper Trade Journal. t.f

SUPERINTENDENT—Now free. Expert on rag, rope, jute, wood and other stocks. Thorough paper maker and mill man. Will make mill pay. Prefer cylinder. Let's hear from you. Strictly confidential. Moderate salary. Address, Box 29-384, care Paper Trade Journal. Jn-27

GENERAL SUPERINTENDENT of sulphite pulp and paper mill desires change. Low cost record on high grade specialties. Good executive ability with excellent experience over period of years. College graduate. Address, Box 29-421, care Paper Trade Journal. Jl-11

CYLINDER MACHINE TENDER—Open for position. Two years experience as tour boss. Twenty-five years practical experience on combination box board and container, also all Kraft, test, liner. Can handle help and get results. Address, Box 29-422, care Paper Trade Journal. Jl-4

ROOFINGS—Chemical engineer with several years of experience in technical control, development, and manufacturing of felt and prepared roofings, desires new connection. Address, Box 29-393, care Paper Trade Journal. Jn-27

SITUATIONS WANTED

WANTED—Position as master mechanic. Have had twenty-seven years of experience in all kinds of paper and pulp mills. Can handle maintenance and construction work. Can organize help and get results. Was eight years with last company; no plant too large. Can furnish best of references and take position at once. Address, Box 29-395, care Paper Trade Journal. Jn-27

BEATER ENGINEER wishes to make a change. Experienced on rag, sulphite, wood and boards. Good on color. Married, steady. Address, Box 29-394, care Paper Trade Journal. Jn-27

SUPERINTENDENT—Eighteen years practical experience tissues, plain and creped, towels, napkins, all lines of creped paper products. Kraft and specialties; twisting, cable filling. Experienced converter crepes and waxing. References. Address, Box 29-22, care Paper Trade Journal. Jl-11

CHEMIST—Graduate of German university with doctor's degree, specializing in commercial chemistry, color making, paper making and coating, wishes connection high grade paper manufacturer. Address, Box 29-424, care Paper Trade Journal. Jl-4

SALESMAN—Fifteen years practical and selling experience with mills making container, wrapping, and other grades, wishes to become connected with mill. Good references. Address, Box 29-403, care Paper Trade Journal. Jn-27

ASSISTANT SUPERINTENDENT—Chemist, eleven years experience in fine writing papers and specialties. Address, Box 29-415, care Paper Trade Journal. Jl-11

MASTER MECHANIC WISHES TO MAKE A CHANGE. EXPERT PAPER MILL MECHANIC. ADDRESS, BOX 29-416, CARE PAPER TRADE JOURNAL. Jl-4

YOUNG WOMAN, secretary-stenographer, wishes position with reliable paper house located New York City. Several years experience with paper mill concern. Thoroughly reliable and efficient, Christian, now employed. Address, Box 29-370, care Paper Trade Journal. Jn-27

SUPERINTENDENT wants position. Twenty-eight years practical man. Knows the maintenance end as well as manufacturing. Prefer a mill that needs a real executive who can organize help and get results. Am familiar with all grades of paper, also pulp mill. Can take position at once. Address, Box 29-396, care Paper Trade Journal. Jn-27

PACIFIC COAST AGENCY for paper manufacturers sought by man now located in Los Angeles. Many years experience in New York City. Good references. Address, Box 29-155, care Paper Trade Journal. t. f.

YOUNG MAN with paper mill and selling experience desires connection representing mill or large paper jobber in New York City. Address, Box 29-402, care Paper Trade Journal. Jn-27

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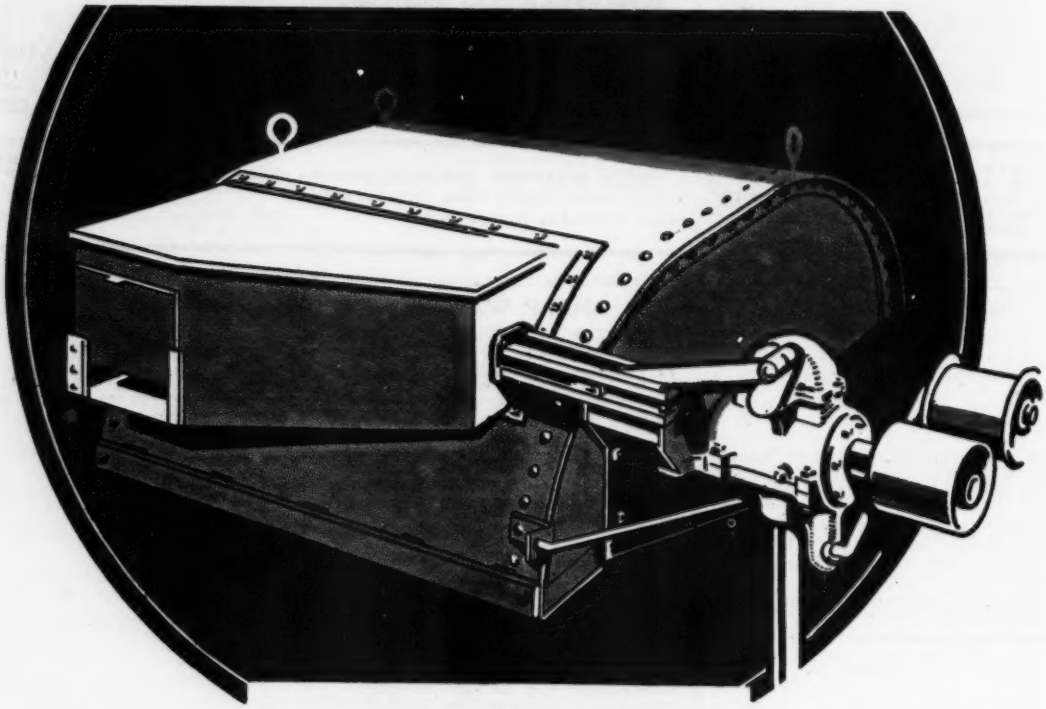

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SUPERINTENDENT WANTS POSITION—25 years practical experience, 17 years as superintendent on all grades of folding box and container board. Have successful record for quality and production. Can furnish good references. Address, Box 29-236, care Paper Trade Journal. t. f.

MASTER MECHANIC—Technical education, twelve years experience, forty years old, wants similar position. Prefer organization having a group of mills or machines. Address, Box 29-371, care Paper Trade Journal. Jn-27

WANTED

WANTED—Odd lots, rejected or cull rolls of paper. W. A. Johns Paper Co., 526 W. 18th St., Chicago. t.f.

URGENTLY WANTED—Good used Cameron Slitter and Rewinder, 40 inches to 60 inches or wider. Heavy type preferred. Address, Box 29-425, care Paper Trade Journal. Jn-27

WANTED—2 W. & P. Pulpers, 2 Filter Presses and 1 Rogers Wet Machine. Address, Box 27-285, care Paper Trade Journal. t.f.

WANTED—84" Hamblet Sheeter with Duplex Knife and Erie Layboy. Also 74" or larger Rewinder; must be in good condition. Address, Box 29-423, care Paper Trade Journal. Jn-27

WANTED—Rubber covered Couch Roll, perfect condition, 50" to 60" face. Manufacturers Binder Company, York, Penna. Jl-4

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FOR SALE

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We can furnish new Cylinder or Fourdrinier parts for these dryers to make a complete and modern machine to suit your requirements.

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BLOSSVALE, N. Y. Jn-27

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FOR SALE

FOR SALE—Headquarters—Good Used Paper Machinery. Pulper Mixers, Wet Machines, Fourdriniers, Super-Calenders, Dryers, Cylinder Moulds, Coating Machines, Evaporators, Sulphur Burners, Tube and Rod Mills, Barkers, Beaters, Digesters, Grinders, Slitters, Shredders, Rotary, Flat and Pulp Screens, Save-Alls, etc. CONSOLIDATED PRODUCTS CO., INC., 15-18 PARK ROW, NEW YORK CITY. BARCLAY 0603 S-12

FOR SALE—72" Moore & White Layboy, good as new. Reasonable price. Address, Box 29-426, care Paper Trade Journal. Jn-27

FOR SALE—64" Dillon Duplex Rotary Sheet Cutter, heavy type with slitting attachment; in A-1 condition and for immediate delivery. Address, Box 29-427, care Paper Trade Journal. Jn-27

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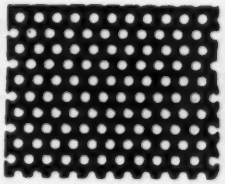

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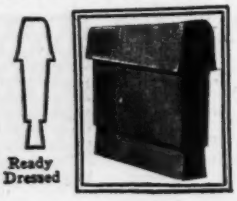

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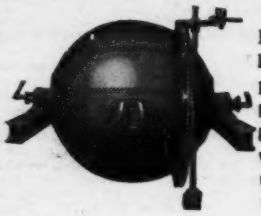

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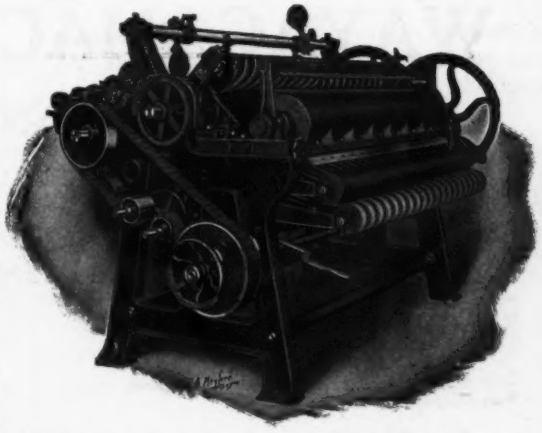

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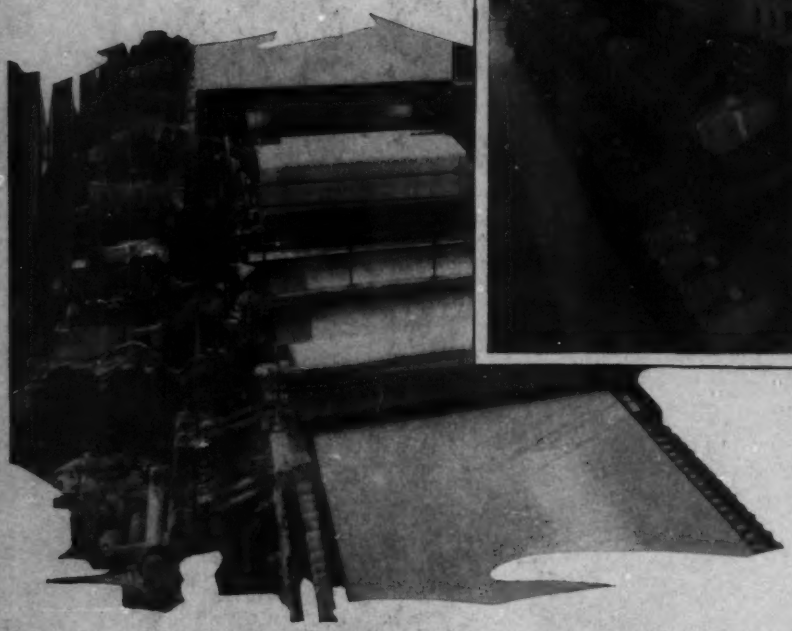

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